iPhone User Interface Design

The application design process

Session 100

These are confidential sessions—please refrain from streaming, blogging, or taking pictures.

iPhone User Interface Design

The application design process

Eric Hope
User Experience Evangelist

iPhone User Interface Design

Foundation
Understand the paradigm shifts of iPhone

Product Definition
Develop core concepts and directions

Design and Prototype
Rapid problem solving on paper

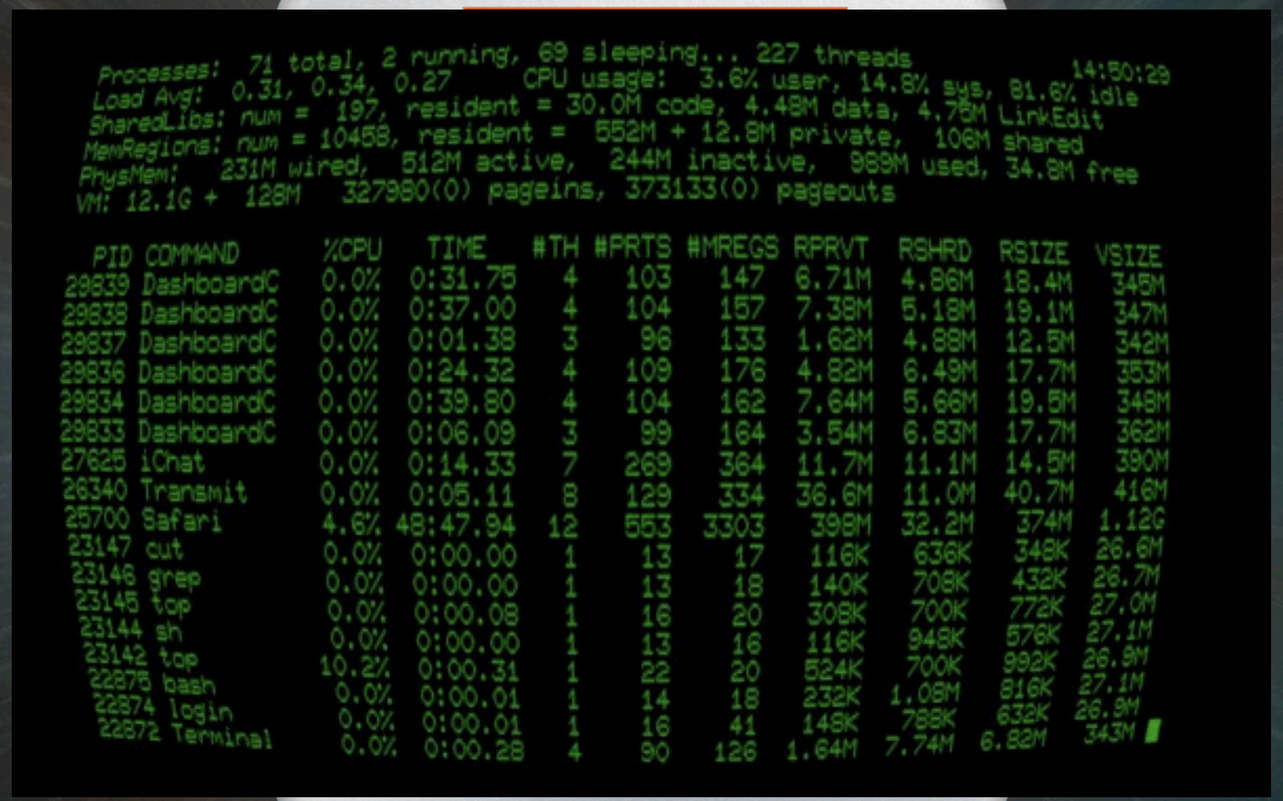
Polish and Refine
Application differentiation through details

“We become what we behold.
We shape our tools and then our tools shape us.”

Marshall McLuhan, 1964

Revolutionary

Revolutionary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SharedLibs: num = 197, resident = 30.0M code, 4.48M data, 4.75M LinkEdit
MemRegions: num = 10458, resident = 552M + 12.8M private, 106M shared
PhysMem: 231M wired, 512M active, 244M inactive, 989M used, 34.8M free
VM: 12.1G + 128M 327980(0) pageins, 373133(0) pageouts
PID COMMAND %CPU TIME #TH #PRTS #MREGS RPRVT RSHRD RSIZE VSIZE
29839 DashboardC 0.0% 0:31.75 4 103 147 6.71M 4.86M 18.4M 345M
29838 DashboardC 0.0% 0:37.00 4 104 157 7.38M 5.18M 19.1M 347M
29837 DashboardC 0.0% 0:01.38 3 96 133 1.62M 4.88M 12.5M 342M
29836 DashboardC 0.0% 0:24.32 4 109 176 4.82M 6.49M 17.7M 353M
29834 DashboardC 0.0% 0:39.80 4 104 162 7.64M 5.66M 19.5M 348M
29833 DashboardC 0.0% 0:06.09 3 99 164 3.54M 6.83M 17.7M 362M
27625 iChat 0.0% 0:14.33 7 269 364 11.7M 11.1M 14.5M 390M
26340 Transmit 0.0% 0:05.11 8 129 334 36.6M 11.0M 40.7M 416M
25700 Safari 4.6% 48:47.94 12 553 3303 398M 32.2M 374M 1.12G
23147 cut 0.0% 0:00.00 1 13 17 116K 636K 348K 26.6M
23146 grep 0.0% 0:00.00 1 13 18 140K 708K 432K 26.7M
23145 top 0.0% 0:00.08 1 16 20 308K 700K 772K 27.0M
23144 sh 0.0% 0:00.00 1 13 16 116K 948K 576K 27.1M
23142 top 10.2% 0:00.31 1 22 20 524K 700K 992K 26.9M
22875 bash 0.0% 0:00.01 1 14 18 232K 1.08M 816K 27.1M
22874 login 0.0% 0:00.01 1 16 41 148K 788K 632K 26.9M
22872 Terminal 0.0% 0:00.28 4 90 126 1.64M 7.74M 6.82M 343M

Terminal Computing

```
Processes:  71 total, 2 running, 69 sleeping... 227 threads                14:50:20
Load Avg:  0.31, 0.34, 0.27     CPU usage:  3.6% user, 14.8% sys, 81.6% idle
SharedLibs: num =  197, resident = 30.0M code, 4.48M data, 4.78M LinkEdit
MemRegions: num = 10458, resident =  552M + 12.8M private,  106M shared
PhysMem:    231M wired,  512M active,  244M inactive,  989M used, 34.8M free
VM: 12.1G +  128M   327980(0) pageins, 373133(0) pageouts

  PID COMMAND      %CPU   TIME    #TH #PRTS #MREGS RPRVT  RSHRD  RSIZE  VSIZE
29839 DashboardC   0.0%  0:31.75   4   103   147  6.71M  4.86M  18.4M   345M
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29836 DashboardC   0.0%  0:24.32   4   109   176  4.82M  6.49M  17.7M   353M
29834 DashboardC   0.0%  0:39.80   4   104   162  7.64M  5.66M  19.5M   348M
29833 DashboardC   0.0%  0:06.09   3    99   164  3.54M  6.83M  17.7M   362M
27625 iChat        0.0%  0:14.33   7   269   364  11.7M  11.1M  14.5M   390M
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25700 Safari       4.6% 48:47.94  12   553  3303   398M  32.2M   374M  1.12G
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23145 top          0.0%  0:00.08   1    16    20   308K   700K   772K  27.0M
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22872 Terminal     0.0%  0:00.28   4    90   126  1.64M  7.74M  6.82M   343M
```

File Edit View Special

System Disk

6 items 232K in disk 167K available

Empty Folder

System Folder

SysVersion

Disk Copy

System Disk

Guided Tour

Guided Tour

Size	Name	Kind	Last Modified
29K	**AMAZING**	application	Sun, Dec 11, 1983
1K	**Scrapbook File**	document	Thu, Dec 8, 1983
4K	**Notes**	document	Thu, Dec 8, 1983
39K	**realfinder**	document	Thu, Dec 8, 1983
102K	**System**	System document	Wed, Dec 7, 1983
2K	**DeskScrap**	System document	Wed, Dec 7, 1983
3K	**Startup**	System document	Wed, Dec 7, 1983

Finder File Edit View Go Window Help
Mon 10:50 AM
Documents
DEVICES
iDisk
Macintosh HD
Backup
SHARED
Leo's MacBook
Aki's Mac mini
Bea's MacBook
Dad's PC
Office Mac Pro
PLACES
Desktop
liam
Applications
Documents
SEARCH FOR
Today
Yesterday
Past Week
All Images
All Movies
All Documents
Jones Family
Portable Document Format (PDF)
Marine Life
Name
Date Modified
Size
Kind
The Collector
Today, 8:23 AM
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Yesterday, 2:15 PM
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Pages Publication
New Zealand Fossils
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Car Purchase Comparison
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Canoe Fun.jpg
Saturday, October 13, 2007, 7:36 PM
2.7 MB
JPEG image
Jones Family
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768 KB
Portable Document Format (PDF)
Marine Life
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Keynote Document
Gardner Letter
Wednesday, October 10, 2007, 2:40 PM
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Pages Publication
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Mountain Bike for Sale
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6.8 MB
Pages Publication
1 of 12 selected, 213.74 GB available
Show In Finder
Napa Travel Brochure
2nd Grade Scrapbook
Mountain Bike Ad
Investor Newsletter
Redwoods Quarterly
Benefits Overview
Samantha's Journal

Changing the Rules

Multi-Touch

New interaction metaphors

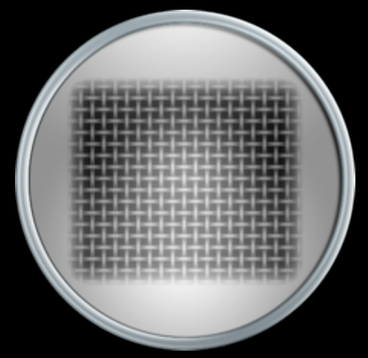
- Mouse precision was predefined

1px X 1px

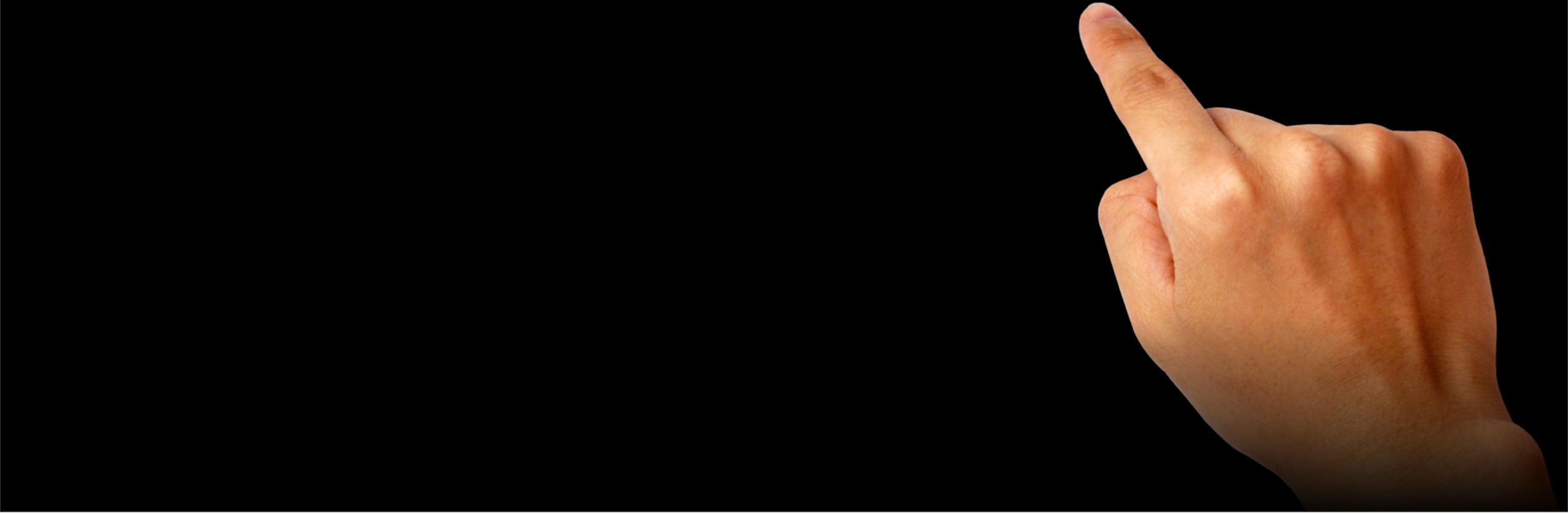
Multi-Touch

New interaction metaphors

- Mouse precision was predefined
- Finger precision is variable



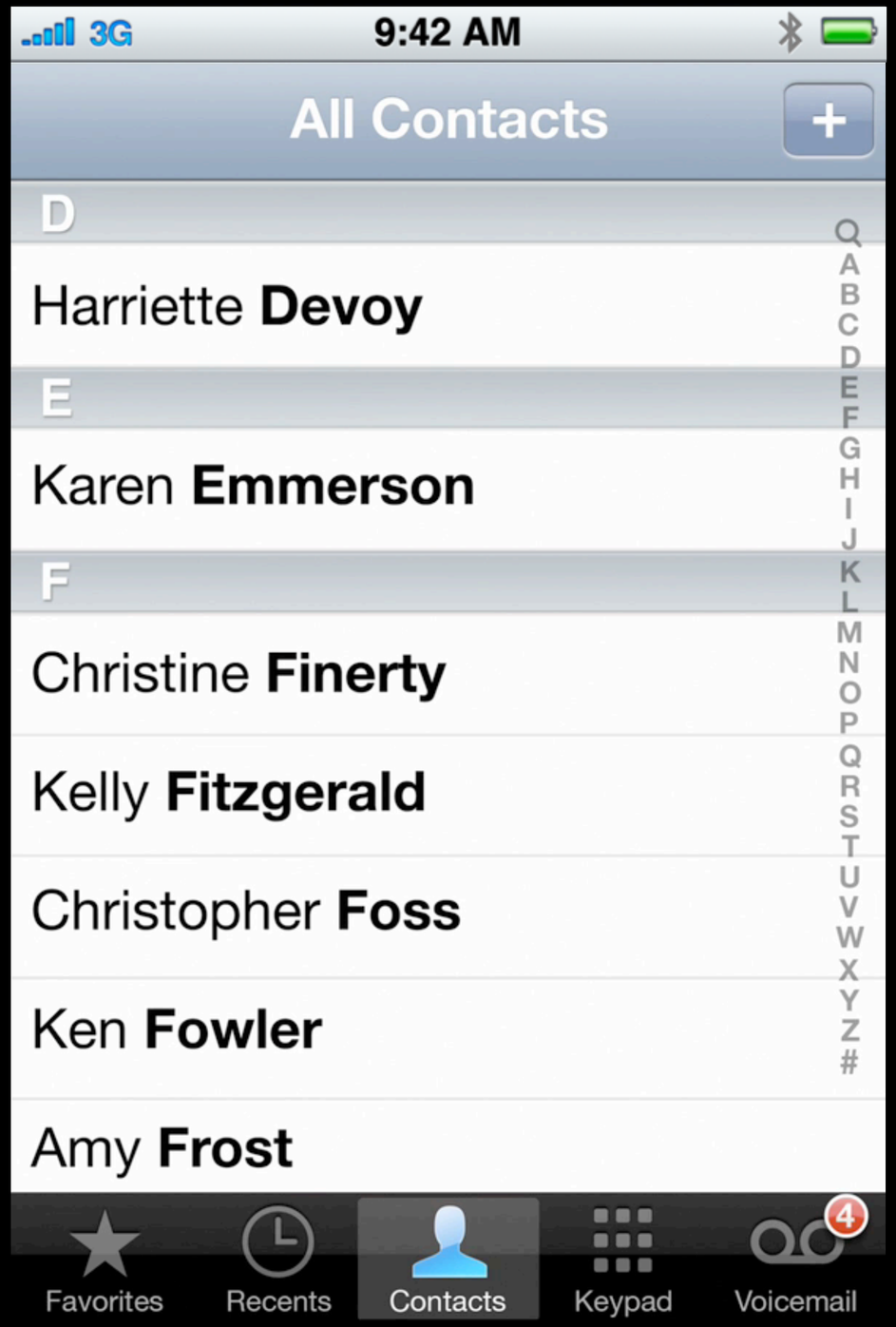
44px X 44px



Multi-Touch

New interaction metaphors

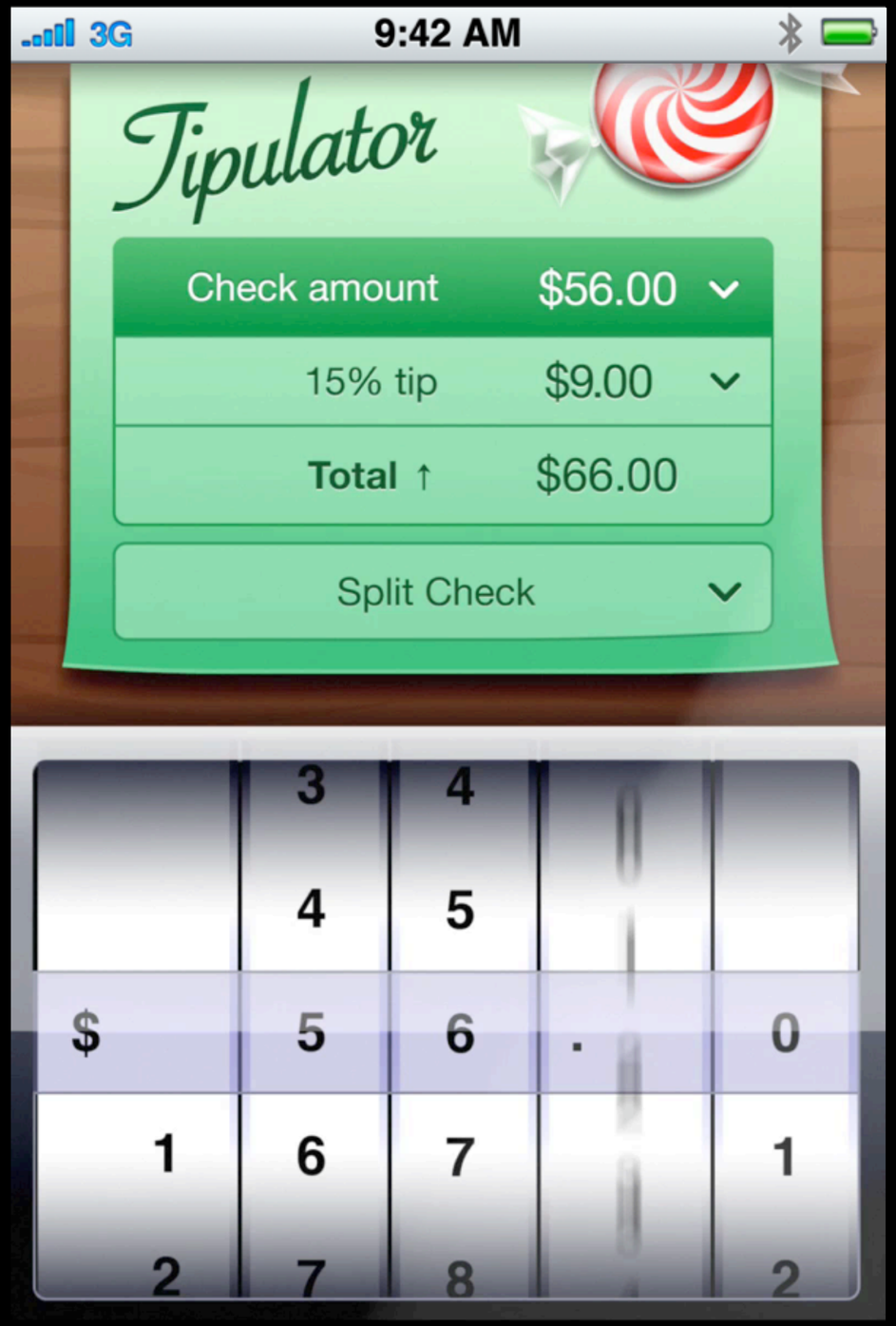
- Mouse precision was predefined
- Finger precision is variable
- Scroll bars become transient



Multi-Touch

New interaction metaphors

- Mouse precision was predefined
- Finger precision is variable
- Scroll bars become transient
- Drop-downs are no longer scalable



Tipulator

Multi-Touch

New interaction metaphors

- Mouse precision was predefined
- Finger precision is variable
- Scroll bars become transient
- Drop-downs are no longer scalable
- Let users interact directly

Direct Manipulation

New interaction metaphors

- Tapping for immediate action

Direct Manipulation

New interaction metaphors

- Tapping for immediate action
- Sequential taps

Direct Manipulation

New interaction metaphors

- Tapping for immediate action
- Sequential taps
- Dragging objects to destinations

Direct Manipulation

New interaction metaphors

- Tapping for immediate action
- Sequential taps
- Dragging objects to destinations
- Abstraction increases stress

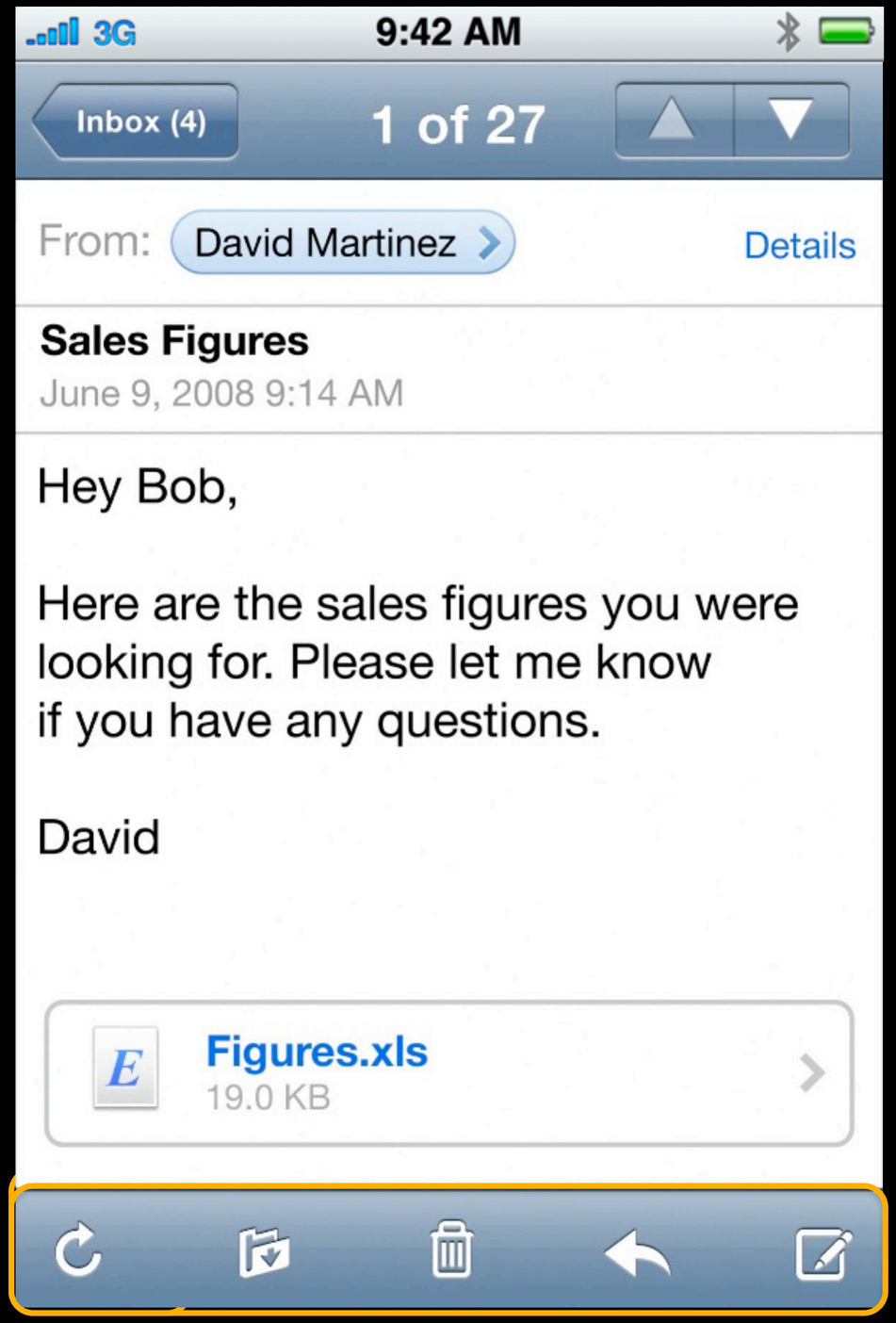
Tactile Design

New visual styles

Tactile Design

New visual styles

- Rounded corners for buttons
- Depth and texture for interactive regions



iPhone User Interface Design

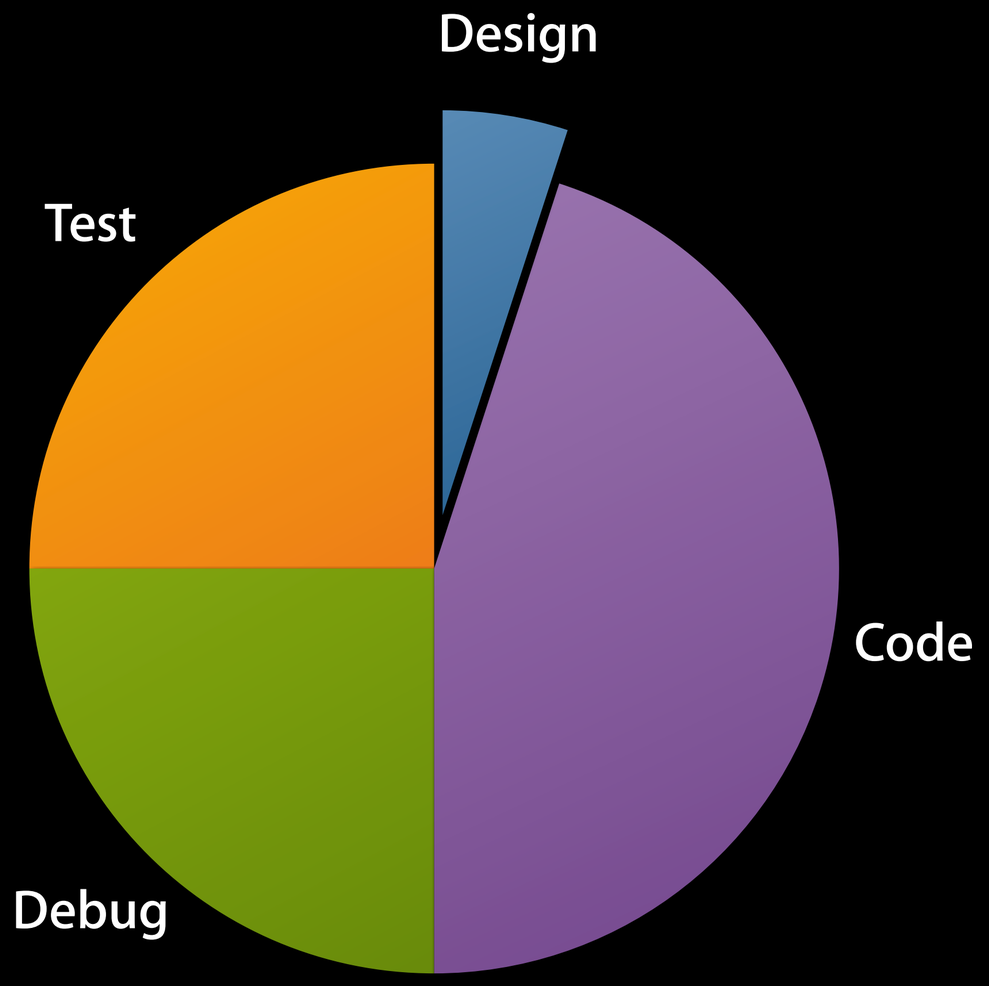
Foundation
Understand the paradigm shifts of iPhone

Product Definition
Develop core concepts and directions

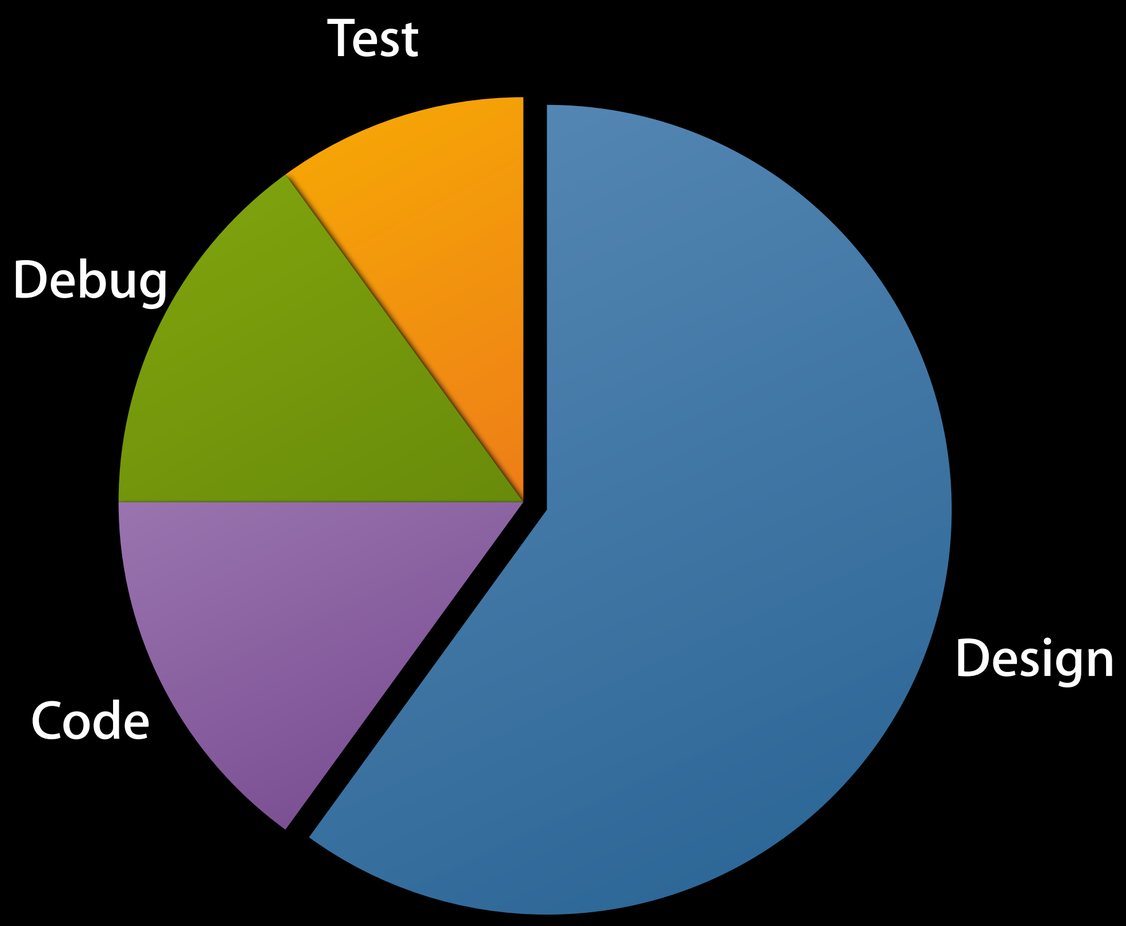
Design and Prototype
Rapid problem solving on paper

Polish and Refine
Application differentiation through details

Typical Development Cycle



iPhone Development Cycle



Product Definition

Lists of features

Organize and search photos by event, name, keyword, title, rating, and date. Crop, straighten, scale, rotate, shadow, highlight, and retouch photos non-destructively. Share photos with iWeb, Mail, Finder, iDVD, and other users with photocasting. Build an online gallery using MobileMe to view, download, and add photos from a Mac or PC. Create and manage Smart Albums. Rate, flag, and hide photos. Create, theme, organize, and order calendars. Create, theme, organize, and order photo books. Create, theme, organize, and order cards. Print high-quality, frame-worthy photos with colored textures, borders and mattes on home printers. Support dozens of modern digital cameras, popular file formats, and printers. Provide full screen preview, retouch, and comparison. Present slideshows with customizable transitions, slide duration, shuffle order, Ken Burns effects, image scaling, and background music from iTunes.

Product Definition

Lists of features

Organize and search photos by event, name, keyword, title, rating, and date. Crop, straighten, scale, rotate, shadow, highlight, and retouch photos non-destructively. Share photos with iWeb, Mail, Finder, iDVD, and other users with photocasting. Build an online gallery using MobileMe to view, download, and add photos from a Mac or PC. Create and manage Smart Albums. Rate, flag, and hide photos. Create, theme, organize, and order calendars. Create, theme, organize, and order photo books. Create, theme, organize, and order cards. Print high-quality, frame-worthy photos with colored textures, borders and mattes on home printers. Support dozens of modern digital cameras, popular file formats, and printers. Provide full screen preview, retouch, and comparison. Present slideshows with customizable transitions, slide duration, shuffle order, Ken Burns effects, image scaling, and background music from iTunes.

Define a solution,

not a collection of features

Application Definition Statement

(Your differentiator) (your solution)
for (your audience)

Application Definition Statement

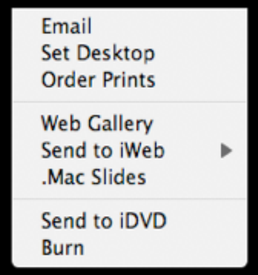
Define Your Solution

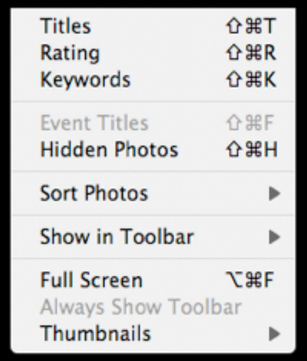
The Application Definition Statement

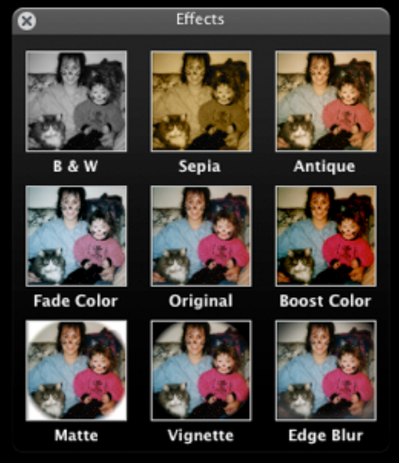
Easy to use digital photo editing, organizing,
and sharing for casual and amateur photographers

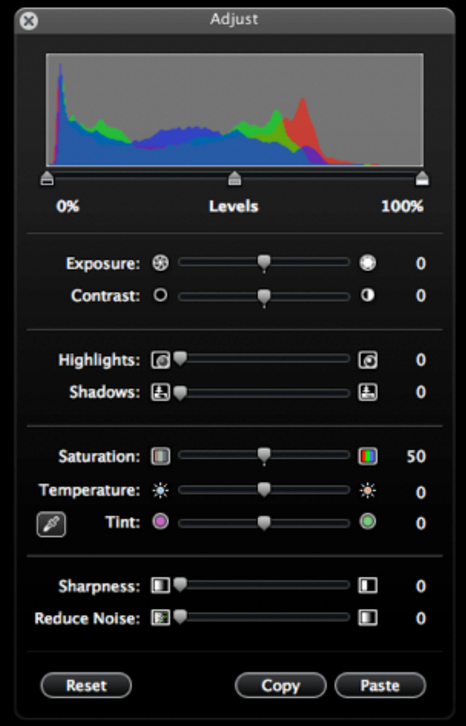
iPhoto on Mac OS X

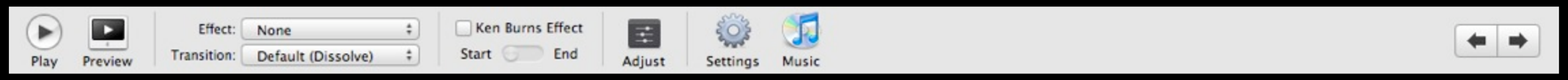
The UI needed to support editing, organizing, and sharing

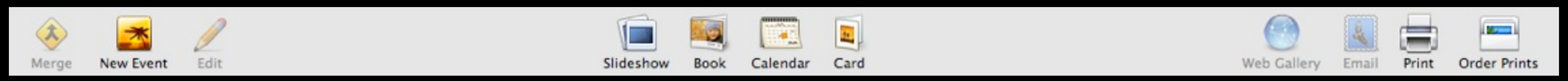


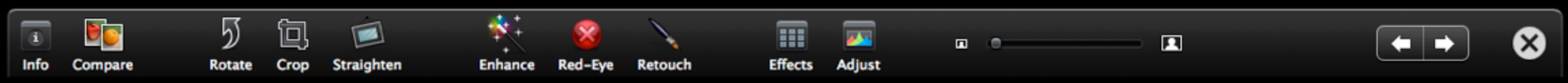












Defining Your Solution

Choosing a primary solution

- Organizing
- Editing
- Sharing

Define Your Solution

The Application Definition Statement

Easy to use digital photo sharing for casual iPhone users

Define Your Solution

The Application Definition Statement

Easy to use digital photo sharing for casual iPhone users

Define Your Solution

The Application Definition Statement

Application Definition Statement

Feature filtering mantra

"Pick the few features,
most frequently used,
by the majority of your users,
most appropriate for the mobile context."

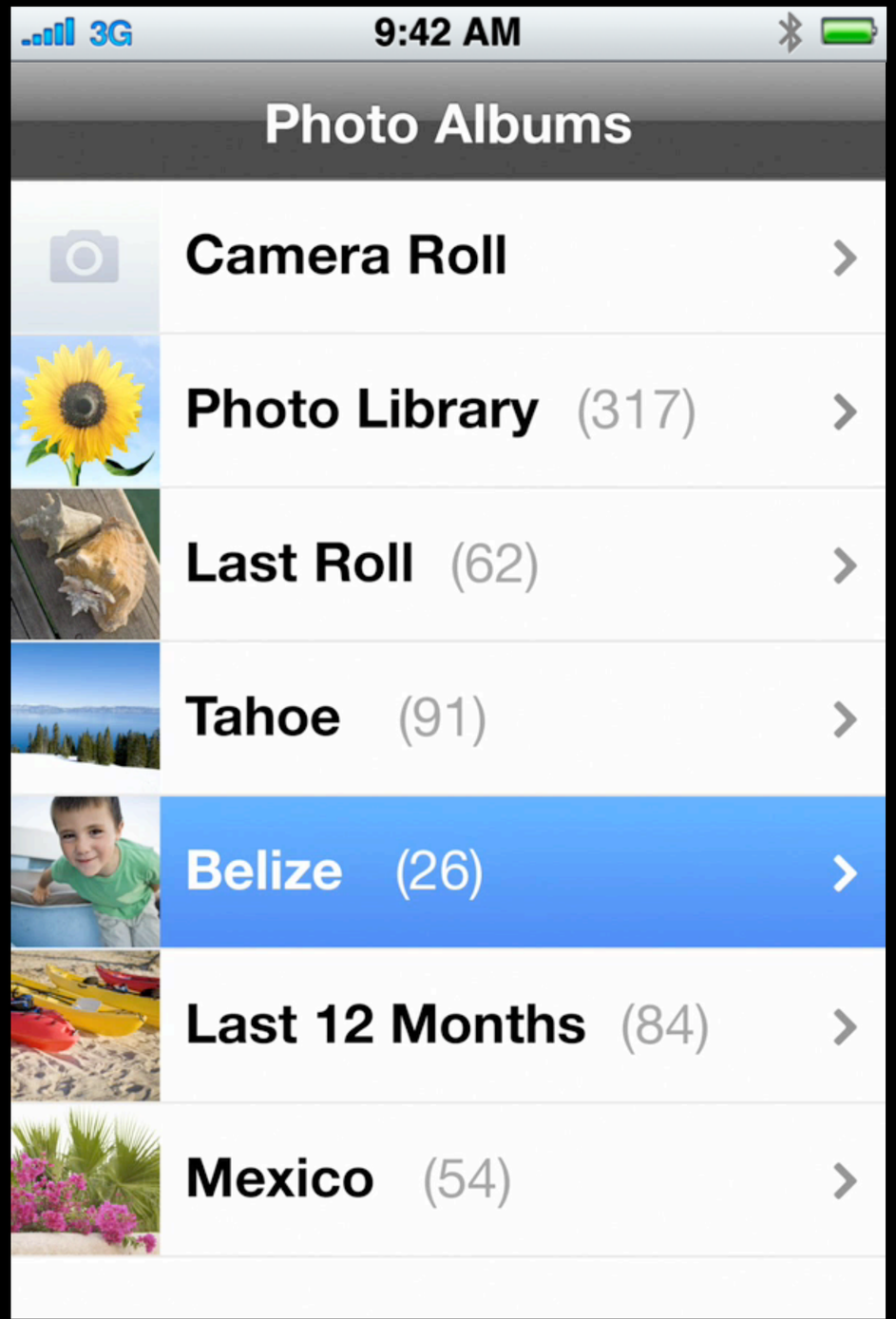
“Easy to use digital photo sharing for casual iPhone users.”

Organize and search photos by event, name, keyword, title, rating, and date. Crop, straighten, scale, rotate, shadow, highlight, and retouch photos non-destructively. Share photos with iWeb, Mail, Finder, iDVD, and other users with photocasting. Build an online gallery using MobileMe to view, download, and add photos from a Mac or PC. Create and manage Smart Albums. Rate, flag, and hide photos. Create, theme, organize, and order calendars. Create, theme, organize, and order photo books. Create, theme, organize, and order cards. Print high-quality, frame-worthy photos with colored textures, borders and mattes on home printers. Support dozens of modern digital cameras, popular file formats, and printers. Provide full screen preview, retouch, and comparison. Present slideshows with customizable transitions, slide duration, shuffle order, Ken Burns effects, image scaling, and background music from iTunes.

Photos

Simply photos

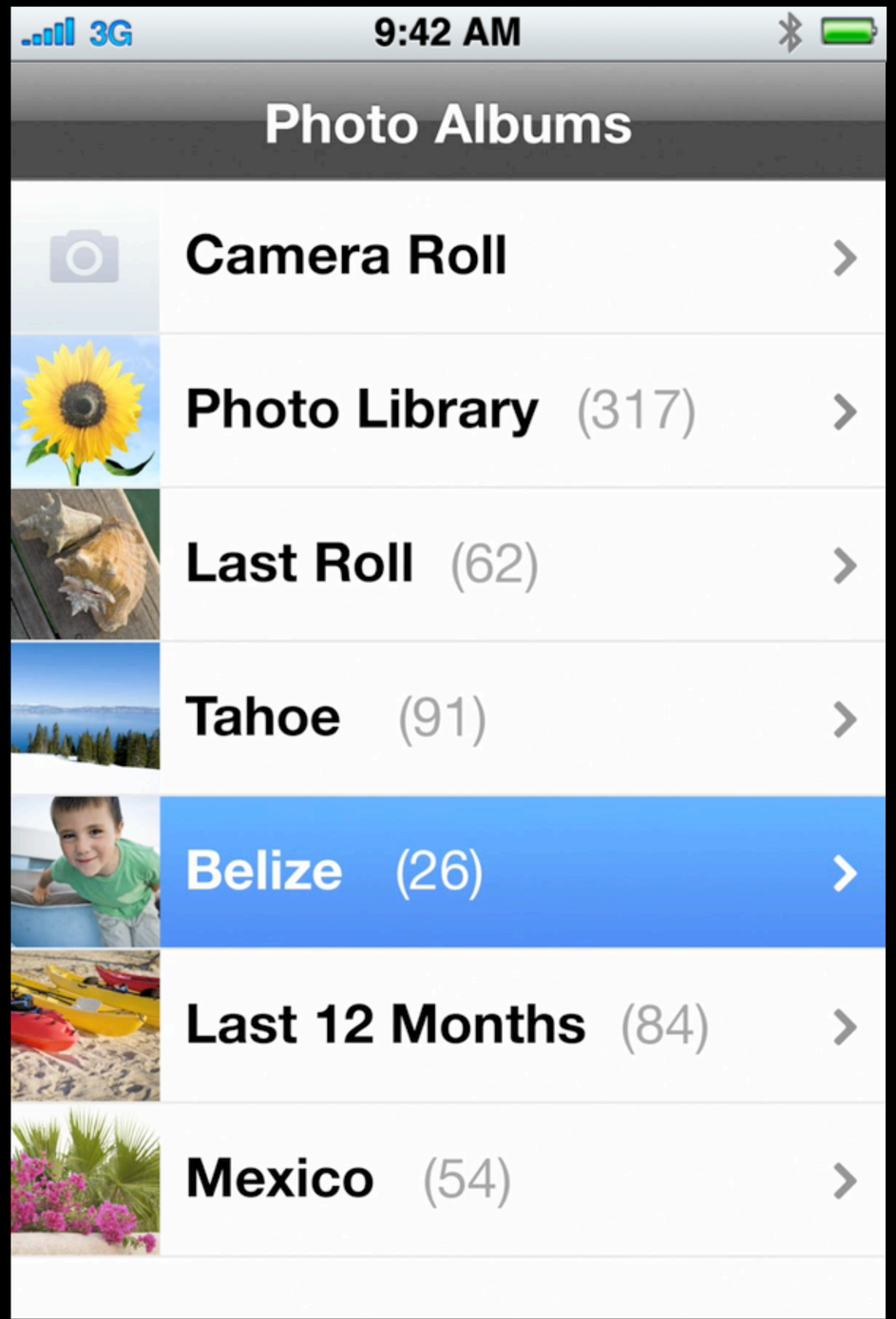
- Select from a list



Photos

Simply photos

- Select from a list
- Browse a grid



Photos

Simply photos

- Select from a list
- Browse a grid
- Swipe the photo

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Rapid problem solving on paper

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iPhone User Interface Design

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Rapid problem solving on paper

Understanding the Basics

Application Styles

Paper Prototyping

“You must understand the rules
before you can break them.”

T.S. Eliot

iPhone Human Interface Guidelines

User Experience

2009-03-04

Read the HIG

CHAPTER 8

Table Views, Text Views, and Web Views

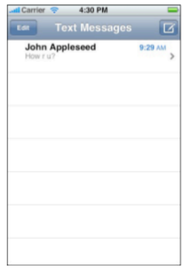
Table views, text views, and web views are versatile elements that lend themselves to different uses in your iPhone application. For example, table views can be configured to display short lists of choices, grouped lists of detailed information, or long, indexed lists of items. Text views and web views are relatively unconstrained containers you can use to accept and display content. This chapter provides guidance for using these elements in your iPhone application.

Table Views

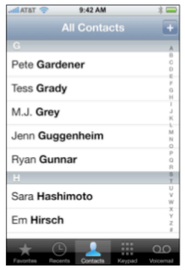
A **table view** presents data in a single-column list of multiple rows. Each row can contain some combination of text, images, and controls, and rows can be divided into sections or groups. Users flick or drag to scroll through large numbers of rows or groups of rows. Figure 8-1 shows how different styles of table views can display lists in different ways.

Figure 8-1 Three ways to display lists using table views

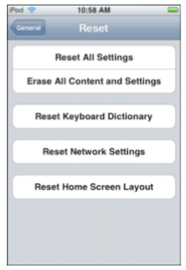
A simple list in a regular style table view



An indexed list in a regular style table view



A grouped list in a grouped table view



This section covers what table views support and how to use them in your application. Then, it describes two styles of table view: the regular style (two variations of which are shown in on the left and in the middle in Figure 8-1) and the grouped style (shown on the right in Figure 8-1).

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But a book is a book.

Understanding the Basics

- Multi-Touch input
- Navigation
- Lists
- Tool bars
- Tab bars
- General aesthetics

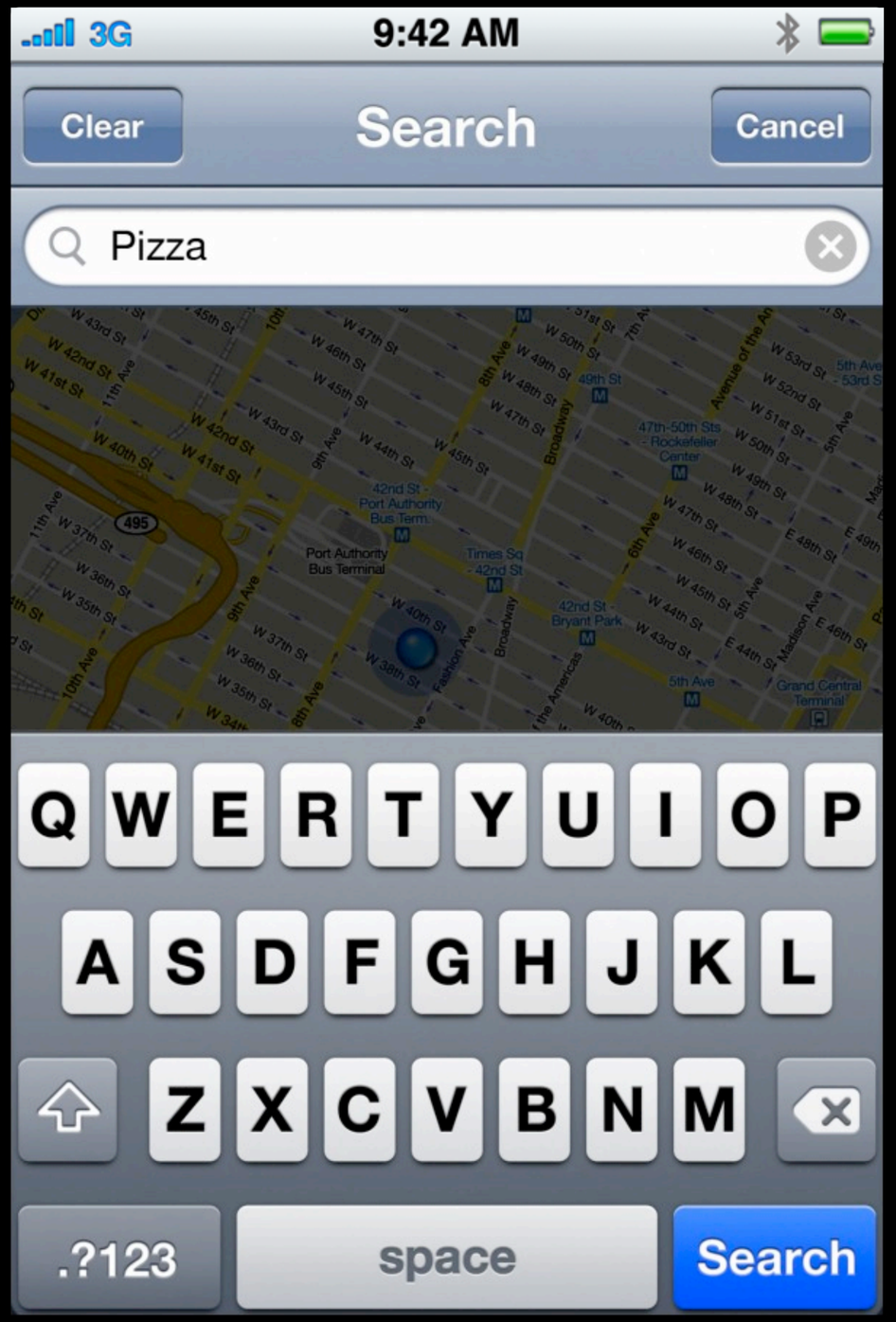
Understanding the Basics

Multi-Touch input

Understanding the Basics

Multi-Touch input

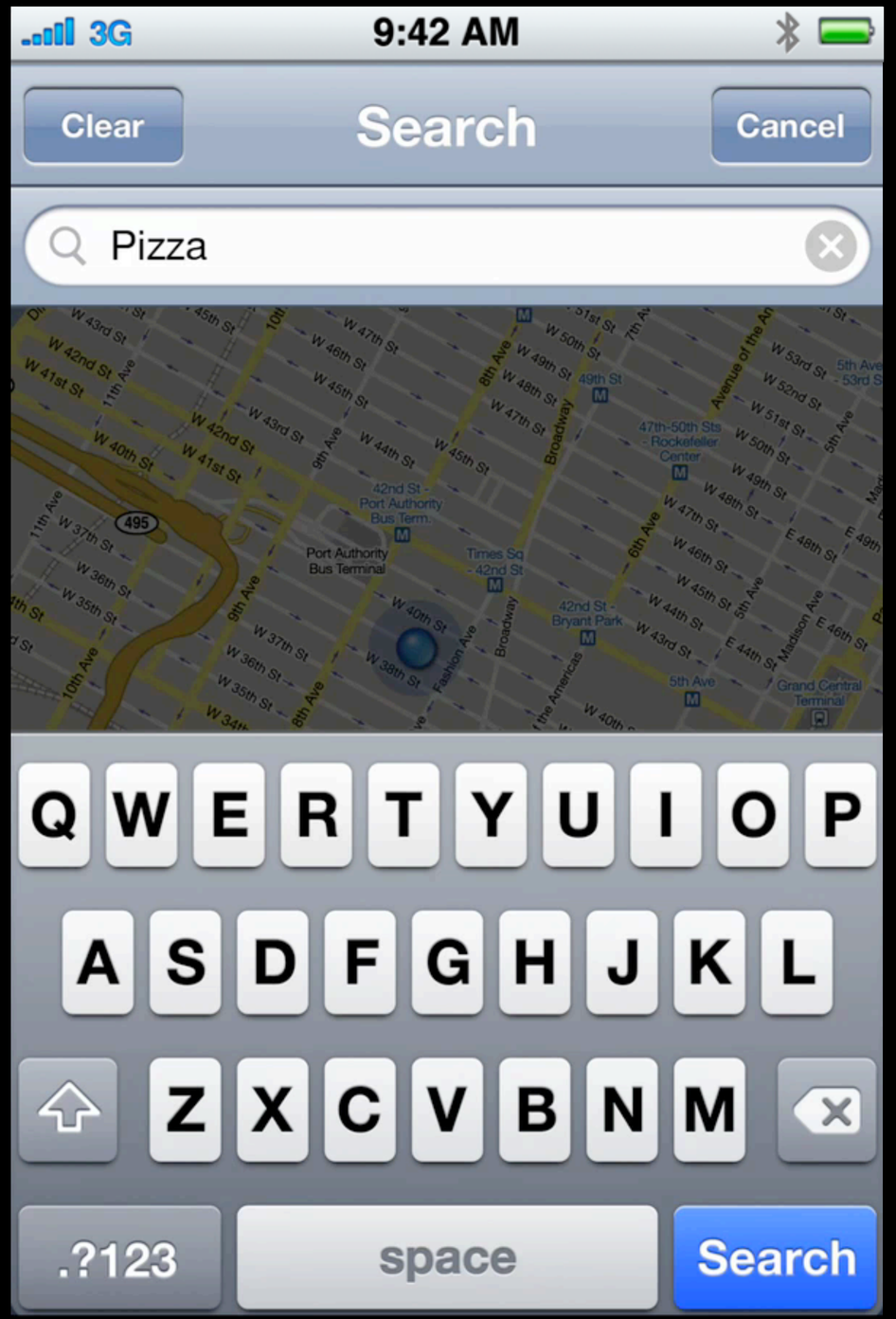
- Stock keyboard, custom controls



Understanding the Basics

Multi-Touch input

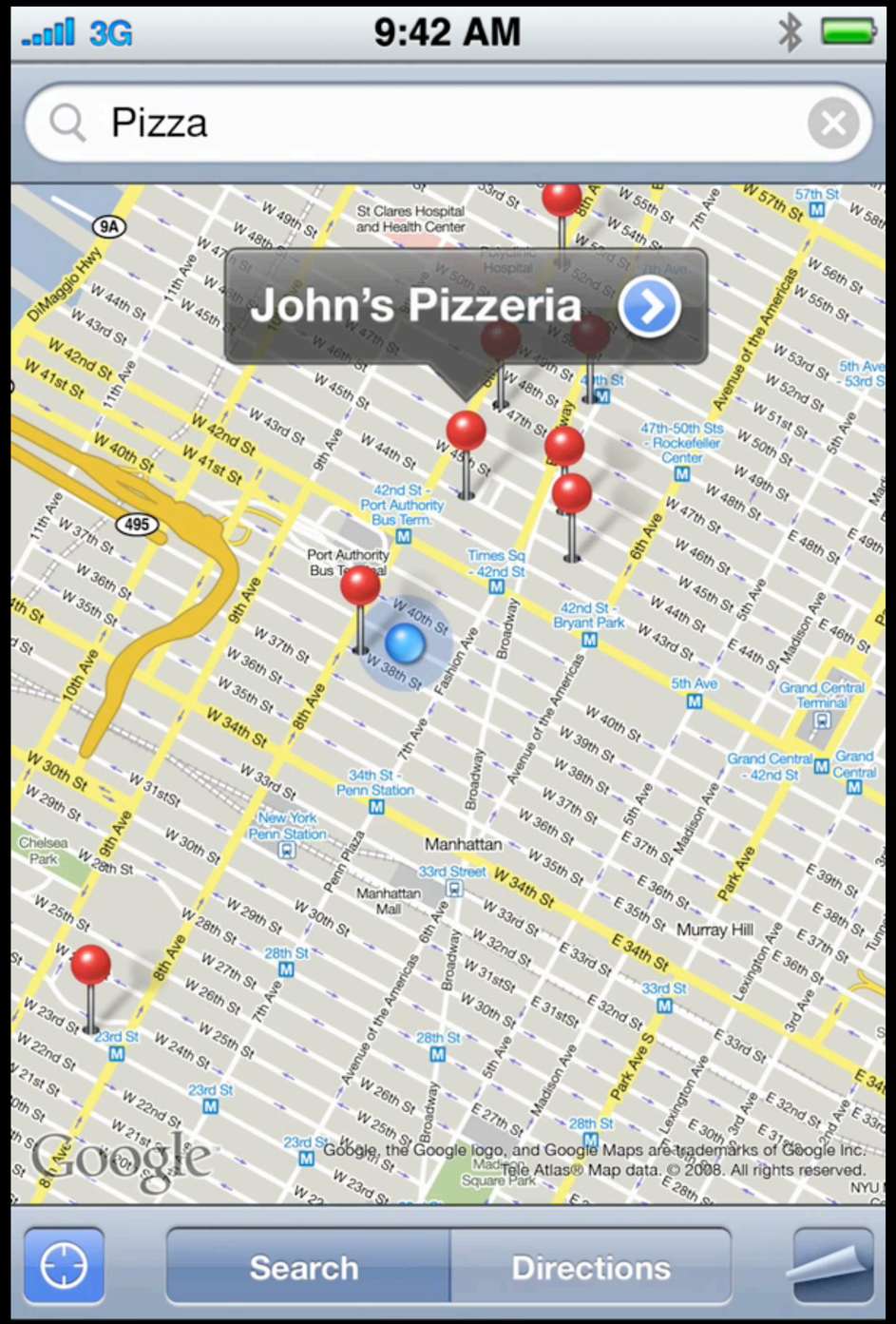
- Stock keyboard, custom controls
- Ability to hide keyboard when desired



Understanding the Basics

Multi-Touch input

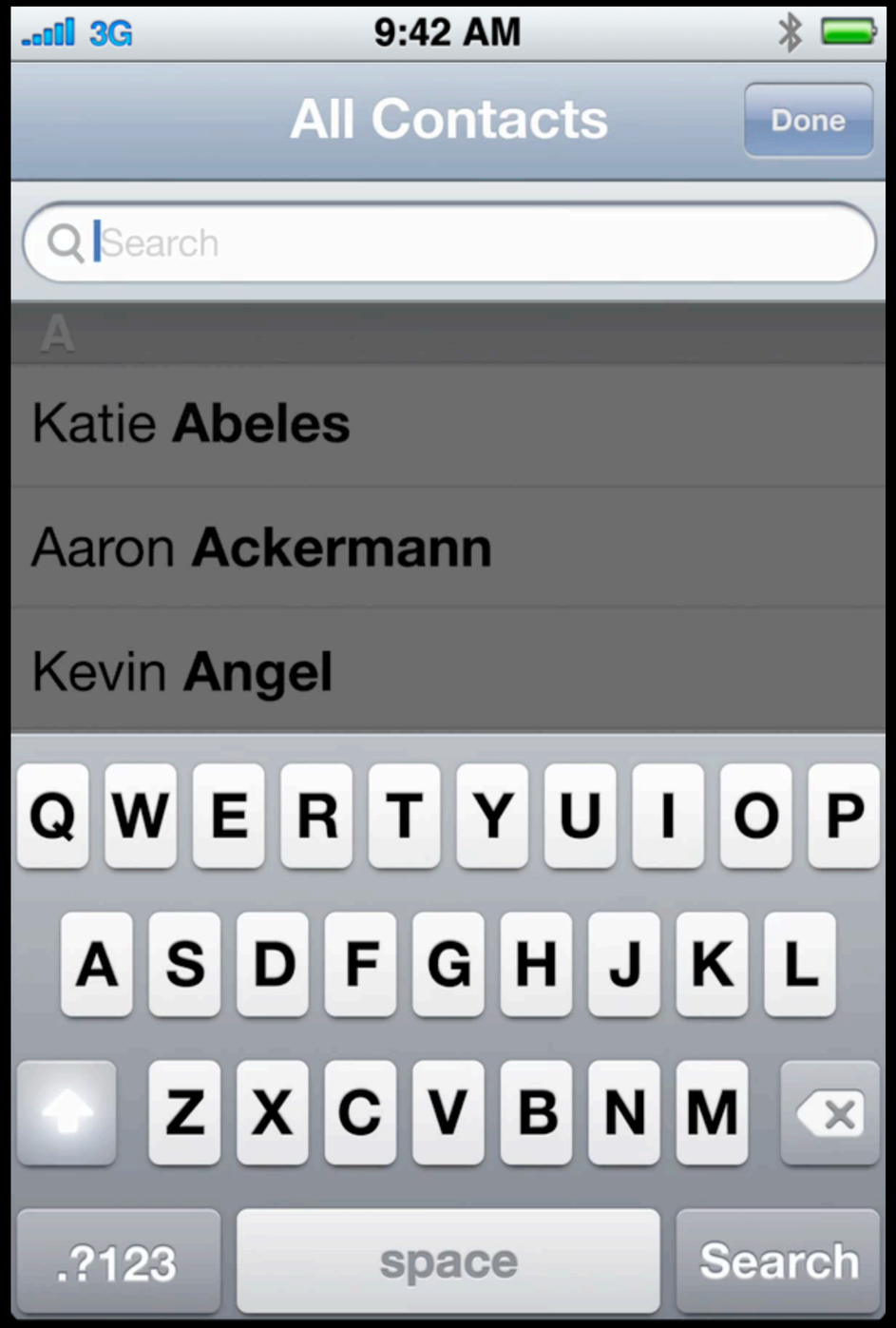
- Minimize text entry by user



Understanding the Basics

Multi-Touch input

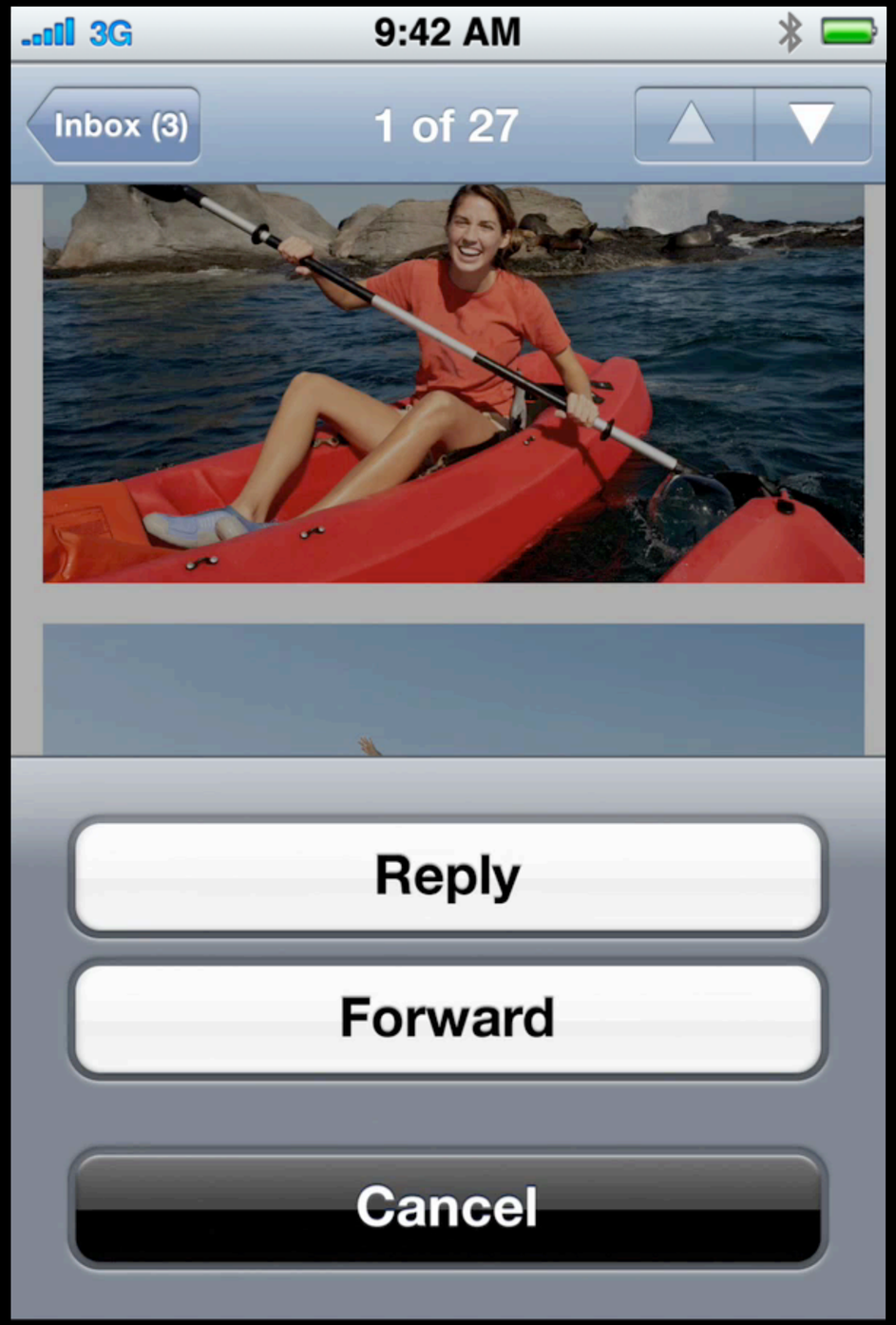
- Minimize text entry by user
- Offer potential choices



Understanding the Basics

Multi-Touch input

- Minimize text entry by user
- Offer potential choices
- Remember everything entered



Understanding the Basics

Navigation

- Mirror object hierarchy

General → Specific

Understanding the Basics

Navigation

- Mirror object hierarchy
- Title reflects location

Understanding the Basics

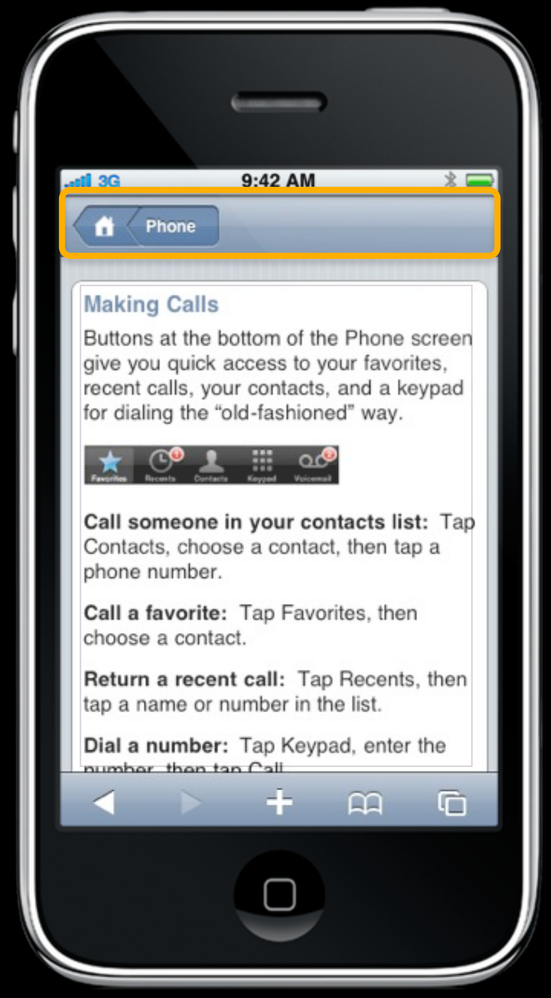
Navigation

- Mirror object hierarchy
- Title reflects location
- Enable navigation among views

Understanding the Basics

Navigation

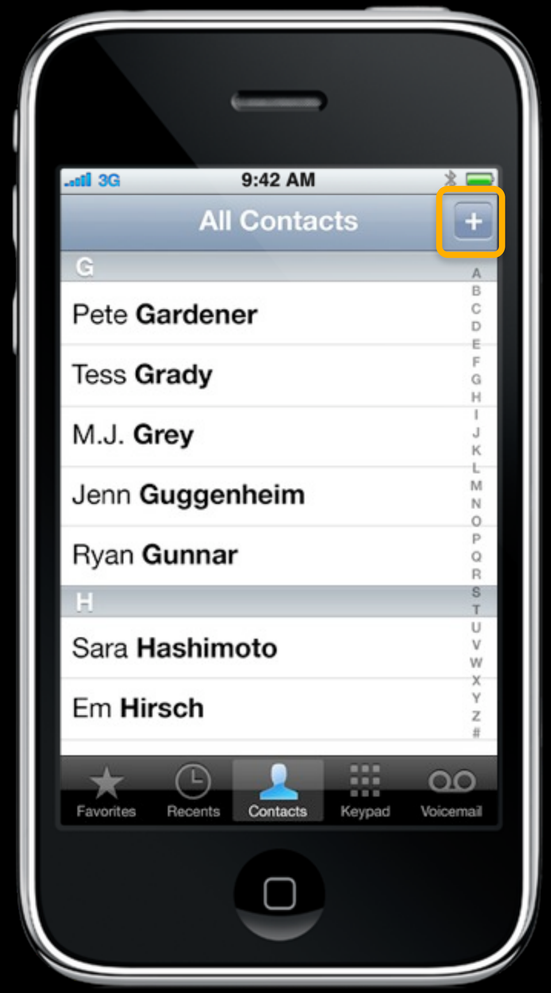
- Mirror object hierarchy
- Title reflects location
- Enable navigation among views
- Avoid home buttons and breadcrumbs



Understanding the Basics

Navigation

- Mirror object hierarchy
- Title reflects location
- Enable navigation among views
- Avoid home buttons and breadcrumbs
- Provide controls that manage views



Understanding the Basics

Navigation

- Mirror object hierarchy
- Title reflects location
- Enable navigation among views
- Avoid home buttons and breadcrumbs
- Provide controls that manage views
- Provide controls that filter views

Understanding the Basics

Lists

- Plain table views
  - Unconstrained data sets
  - Categorization
  - Quick navigation

Understanding the Basics

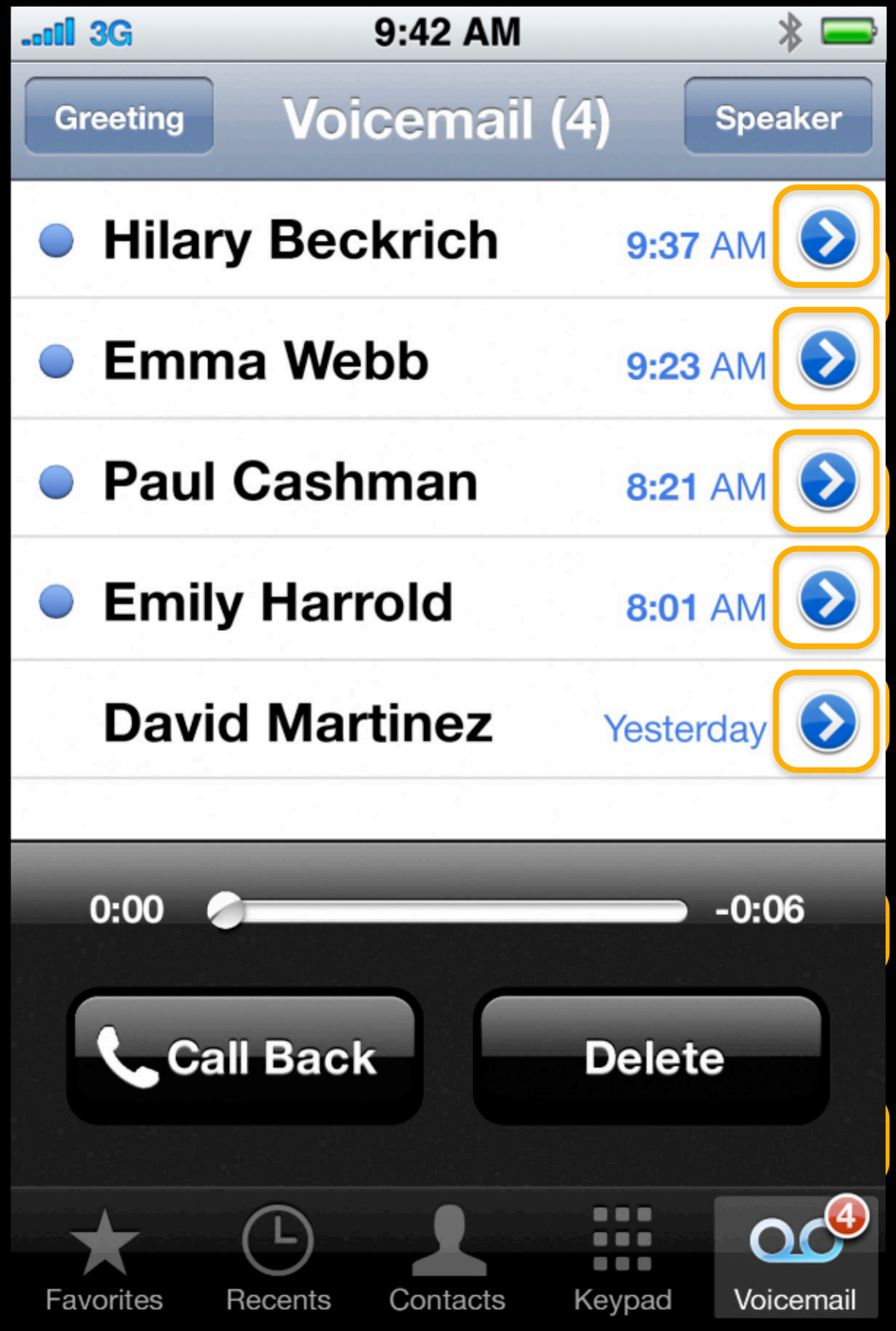
Lists

- Plain table views
  - Unconstrained data sets
  - Categorization
  - Quick navigation
- Grouped table views
  - Constrained data sets
  - Grouping of like items
  - Graphically rich

Understanding the Basics

Lists

- Use the disclosure indicator
  - Flat arrow within a row
- Use the advanced disclosure button
  - White arrow within blue circle



Understanding the Basics

Pickers

- For multivalues
- For constrained sets
- Minimize text entry

Understanding the Basics

Tool bars

- Directly affect the current screen
- Contain frequently used commands

Understanding the Basics

Tab bars

- Manage complexity
- Increase efficiency
- Switch between modes and collections
- Mostly permanent
- Customizable

Understanding the Basics

Tab bars

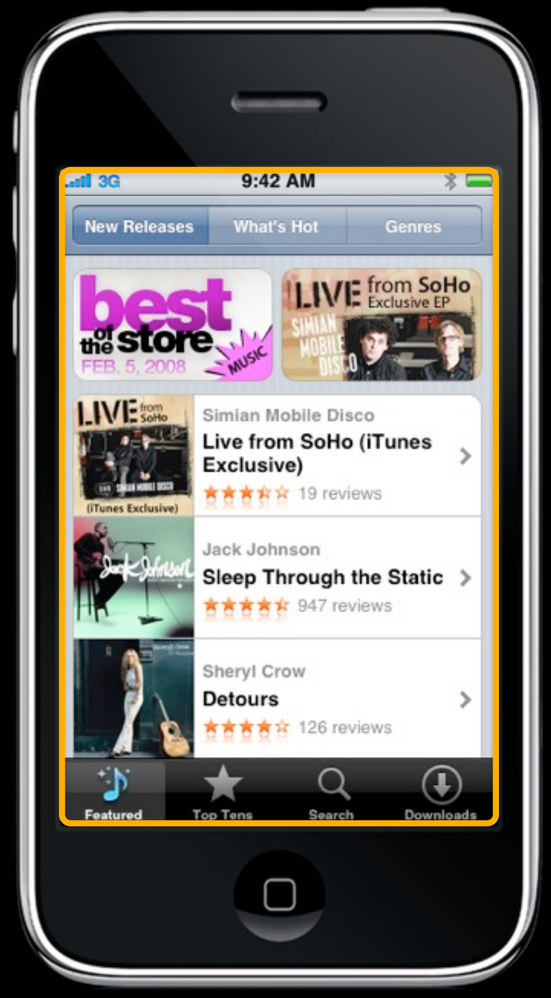
Understanding the Basics

Tab bars

Understanding the Basics

Tab bars

- Ordering
  - Freshness vs. frequency of use



Understanding the Basics

Aesthetics

- Prioritize items most frequently used

More frequently used or read

Less frequently used or read

Understanding the Basics

Aesthetics

- Prioritize items most frequently used
- Use standard, built-in controls
- Avoid unneeded customization

Understanding the Basics

Aesthetics

- Prioritize items most frequently used
- Use standard, built-in controls
- Avoid unneeded customization
- Keep it clean
  - Colors
  - Alignment
  - Spacing

Understanding the Basics

- Multi-Touch input
- Navigation
- Lists
- Tool bars
- Tab bars
- General aesthetics

iPhone User Interface Design

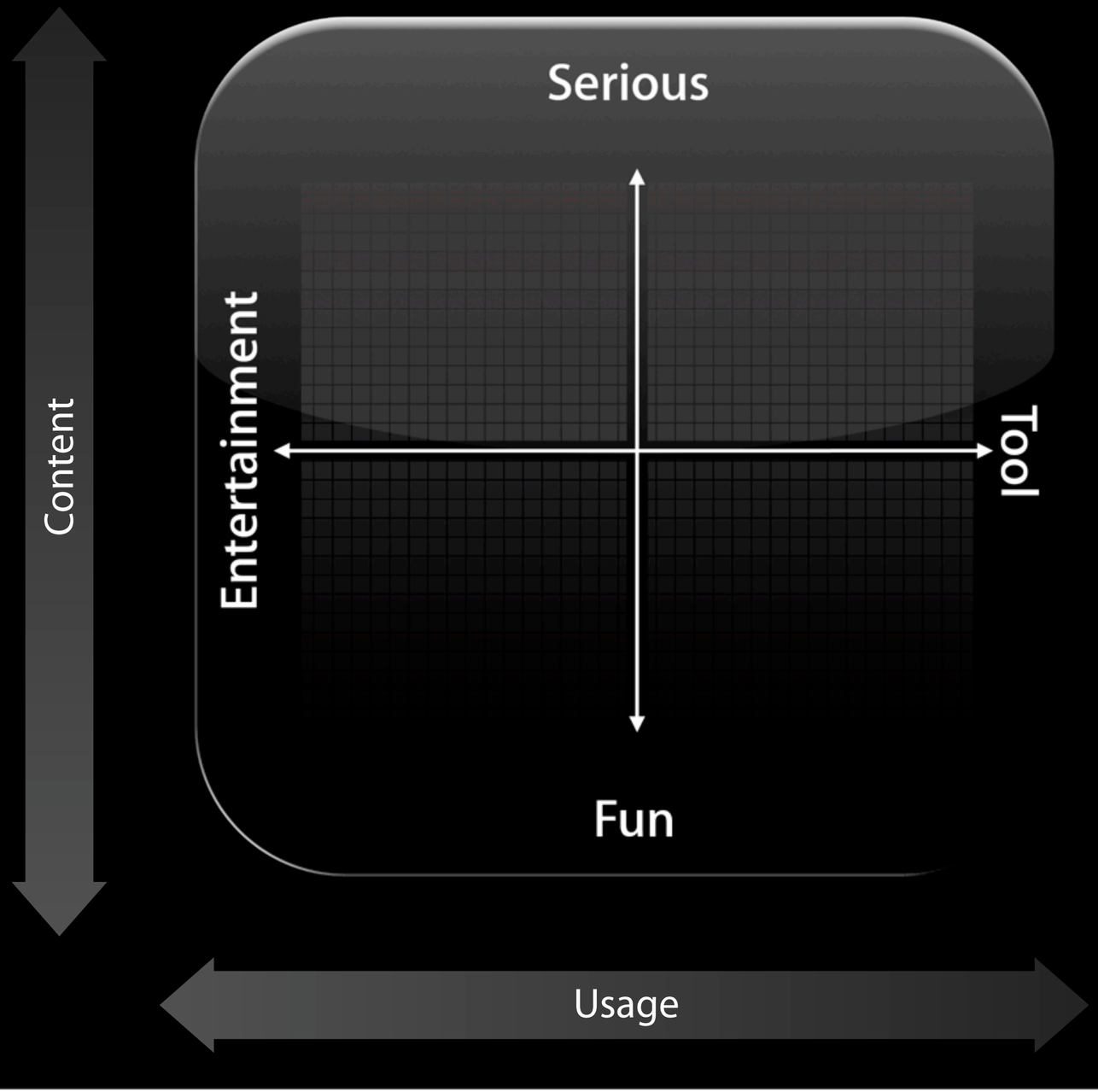
Design and Prototype
Rapid problem solving on paper

Understanding the Basics

Application Styles

Paper Prototyping

Assessing Application Types



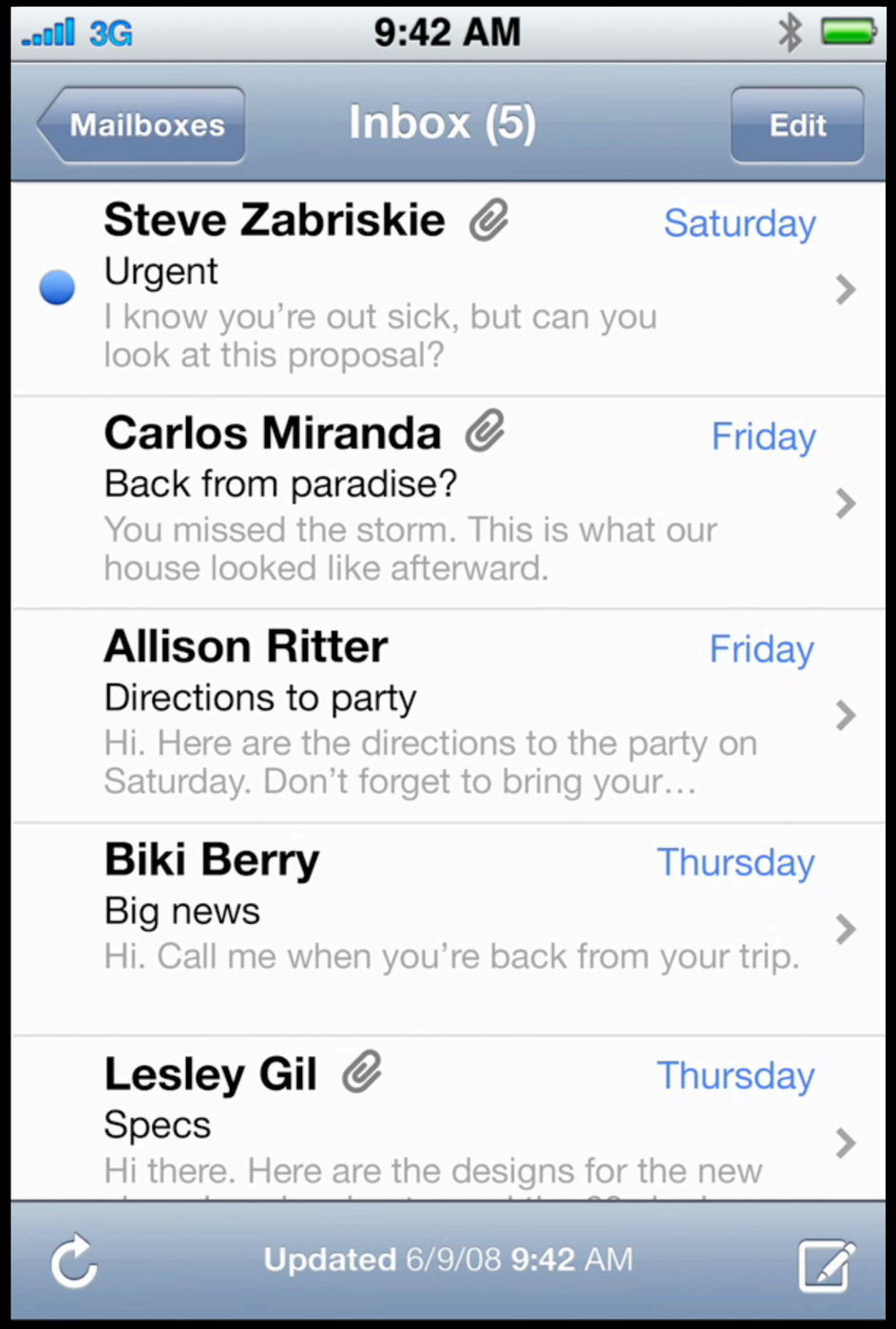
Application Styles

Serious tool

Application Styles

Serious tool

- Purpose-driven
- Does or changes something
- Hierarchical, multiwindow structure
- Minimal graphics



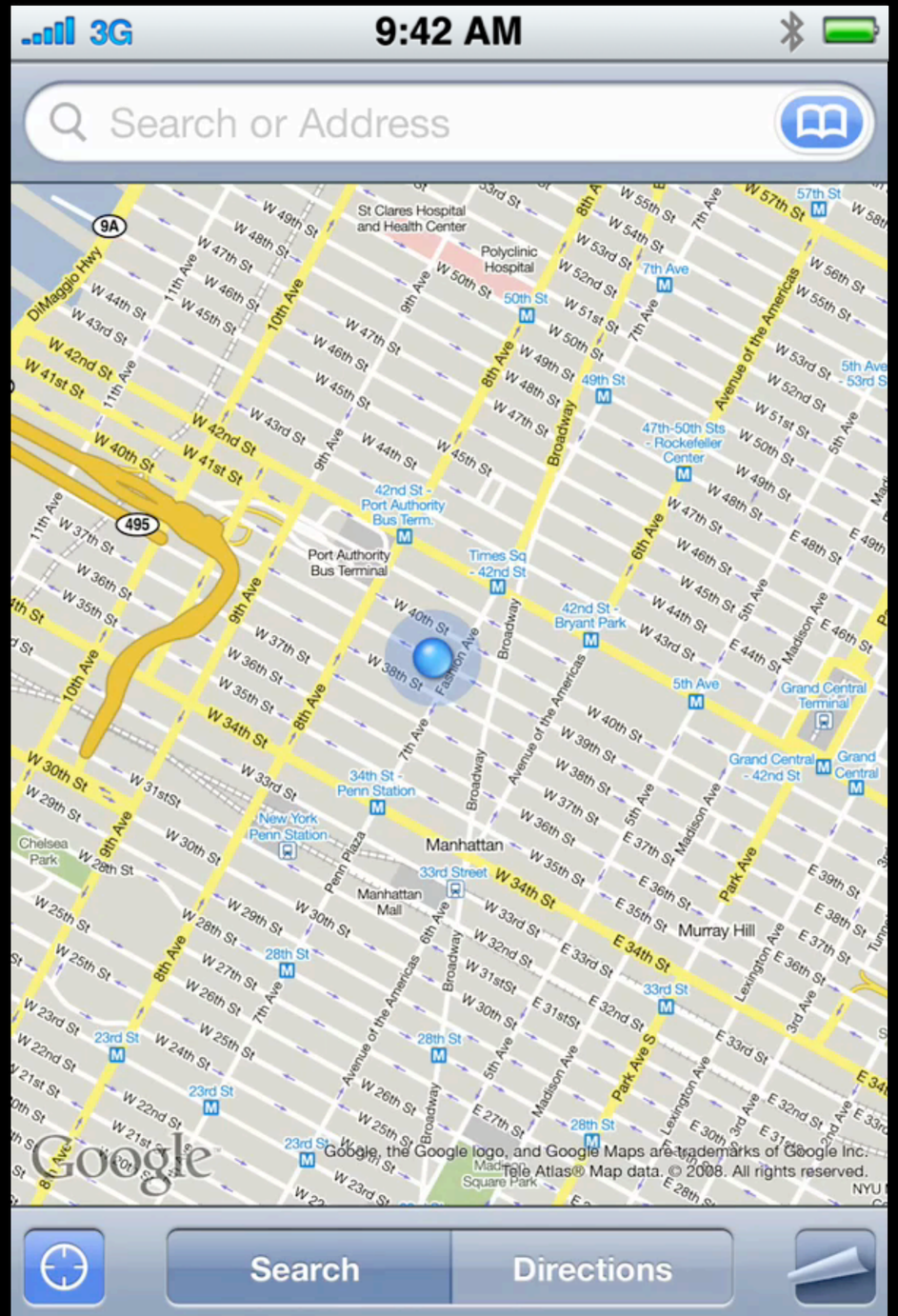
Application Styles

Fun tool

Application Styles

Fun tool

- Fun to use and useful
- Some graphically rich elements
- Small information hierarchy



Application Styles

Fun entertainment

Bed Bugs/Igloo Games

Application Styles

Fun entertainment

- Pure entertainment
- Interaction driven
- Rarely hierarchical
- Intensely graphical

Bed Bugs/Igloo Games

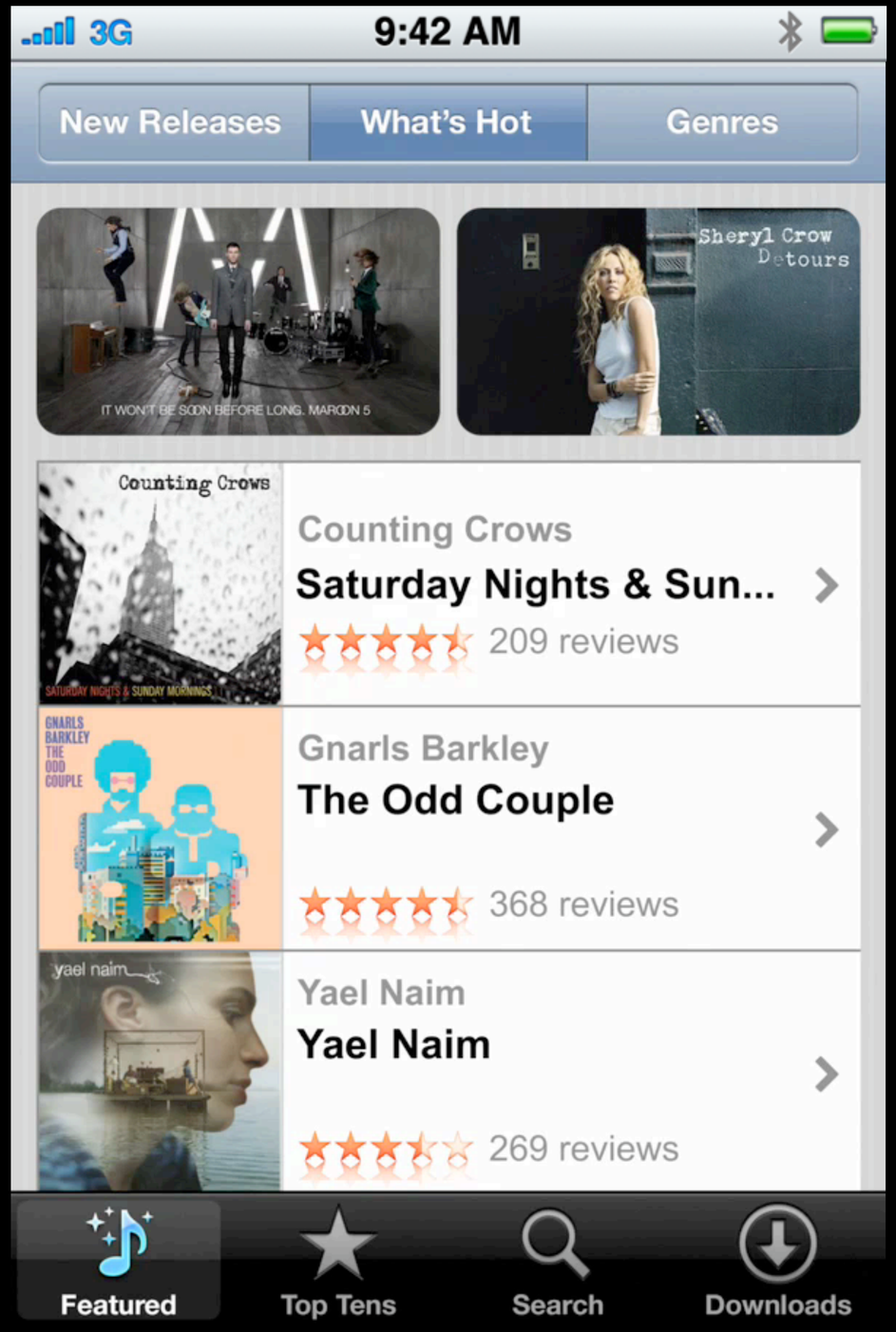
Application Styles

Serious entertainment

Application Styles

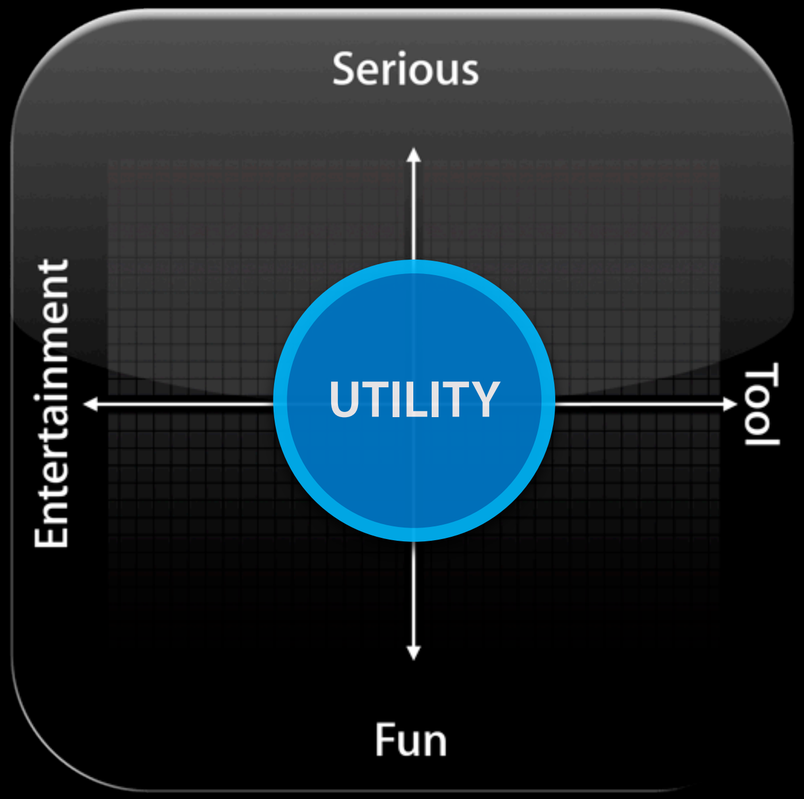
Serious entertainment

- Serious interface for entertaining content
- Educational entertainment
- Data-driven
- Potentially hierarchical
- Moderately graphical



Application Styles

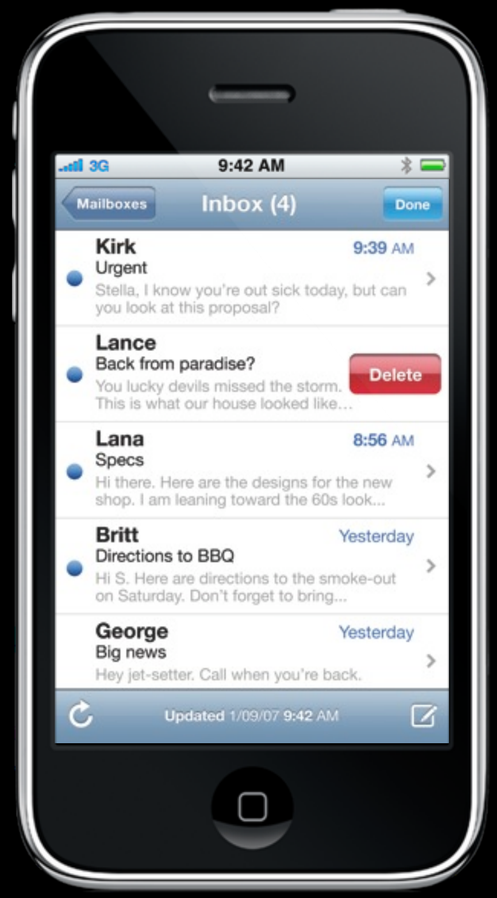
Utilities



Application Styles

Utilities

- Graphically rich
- Single-screen
- Discrete functionality
- Narrow in scope
- Consumption oriented
- Not data heavy



Productivity

Utility

Immersive

iPhone User Interface Design

Design and Prototype
Rapid problem solving on paper

Understanding the Basics

Application Styles

Paper Prototyping

Paper Prototyping

Preliminary sketches

- Sketch every screen
- Sketch every interaction
- Go through the flow on paper

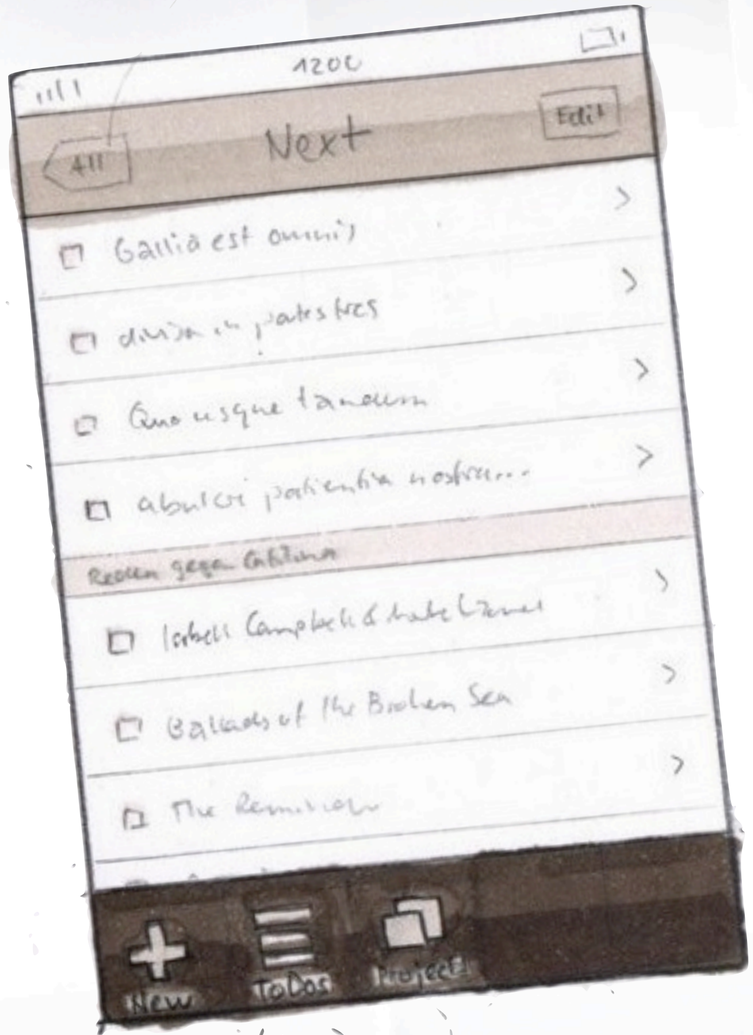
Anyone can do it.

1. TAB BAR VS. TOOLBAR

New
To Dos
Projects
Tags
Search

1200
To Dos
Inbox
Today
Next
Someday
Scheduled
New
To Dos
Projects

1200
To Dos
Square One
What If
White Shadows. For You
Talk x&y
Speed of Sound
New
To Dos
Projects


1200
Next
Edit
Gallia est omnis
divisa in partes tres
Quo usque tandem
abutere patientia nostra...
Reuben sega Cabbana
Ballads of the Broken Sea
New
ToDos

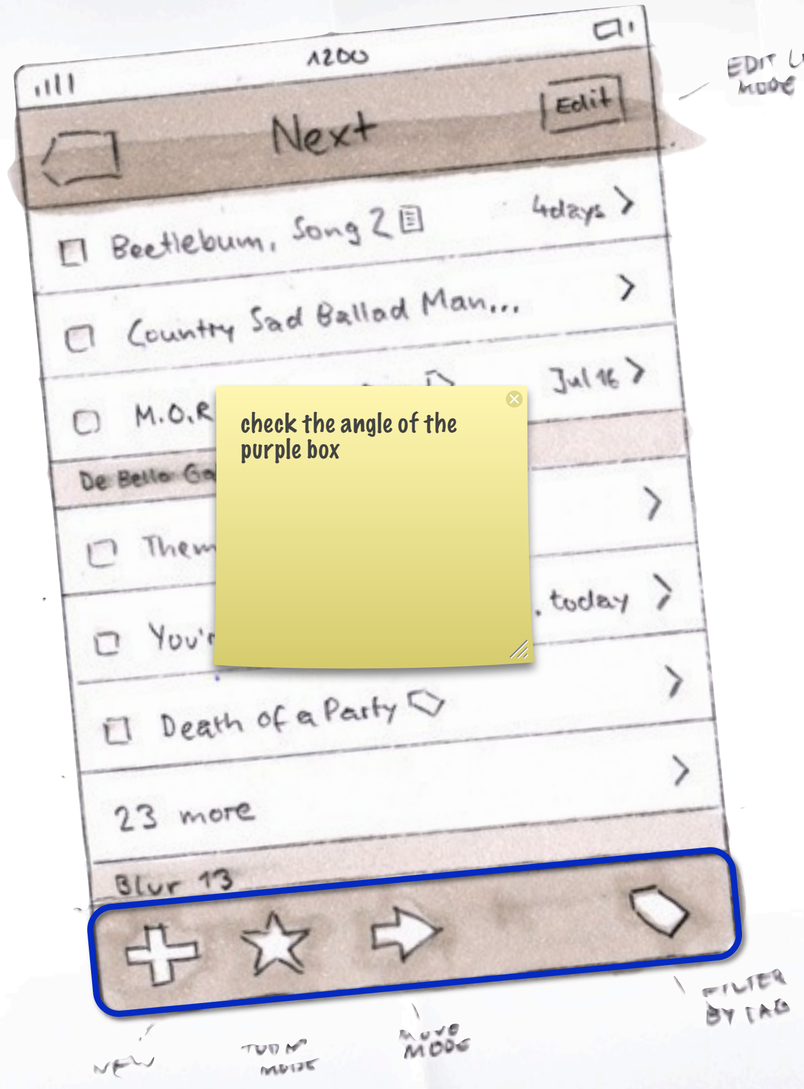
1200
Things
Inbox
Today
Next
Someday
Scheduled
Projects
1200
Next
Edit
EDIT LIST MODE
Beetlebum, Song 2
4days
Country Sad Ballad Man...
M.O.R. On Your Own
Jul 16
De Bello Gallico
Theme from Retro
You're so great and I love... today
Death of a Party
23 more
Blur 13
NEW
TURN MODE
MOVE MODE
FILTER BY TAG

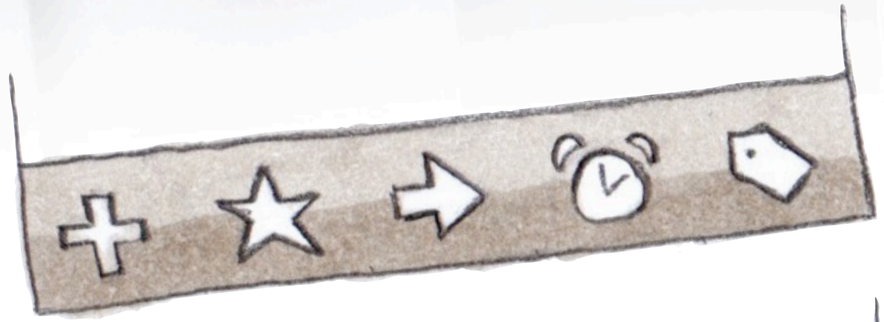
Lists
Inbox
Today
Next
Scheduled
Someday
Projects
Logbook
check the edges
Lists
Next
Edit
Make dentist appointment
Send in job application
due
Buy Anna's birthday gift
Get new jeans
Renew license plate
Vacation in Italy
Look into trave insurance
Make hotel reservation
Aug 8
Arrange for pet boarding

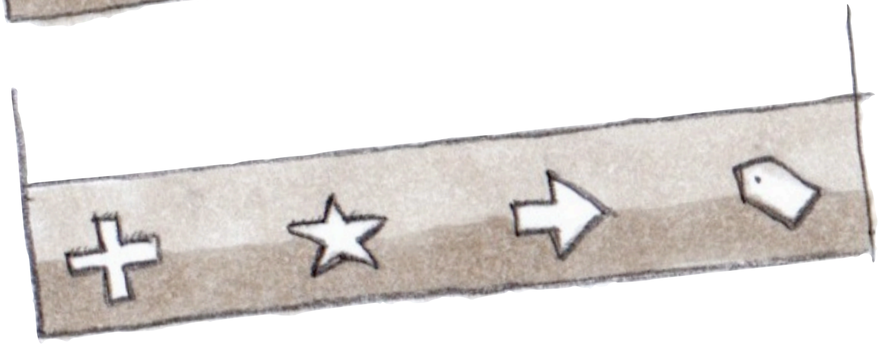
2. ADDING TO-DOS

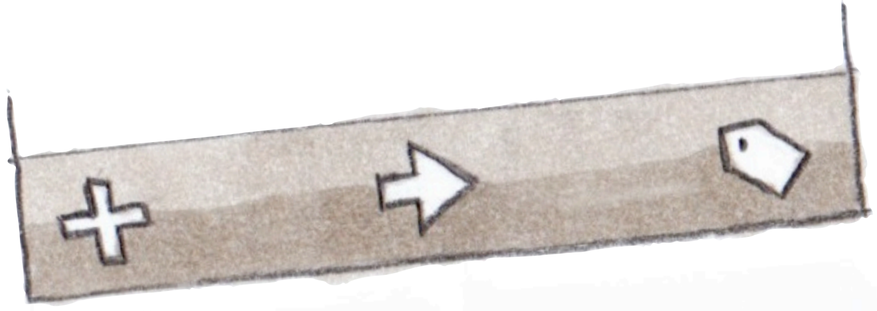
1200
Next
Edit
EDIT LIST MODE
Beetlebum, Song 2
4days
Country Sad Ballad Man...
M.O.R. On Your Own
Jul 16
De Bello Gallico
Theme from Retro
You're so great and I love... today
Death of a Party
23 more
Blur 13
NEW
TODAY MODE
MOVE MODE
FILTER BY TAG

1200
Next
Edit
EDIT LIST MODE
Beetlebum, Song 2
4days
Country Sad Ballad Man...
M.O.R. On Your Own
Jul 16
De Bello Gallico
Theme from Retro
You're so great and I love... today
Death of a Party
23 more
Blur 13
FILTER BY TAG
MOVE MODE

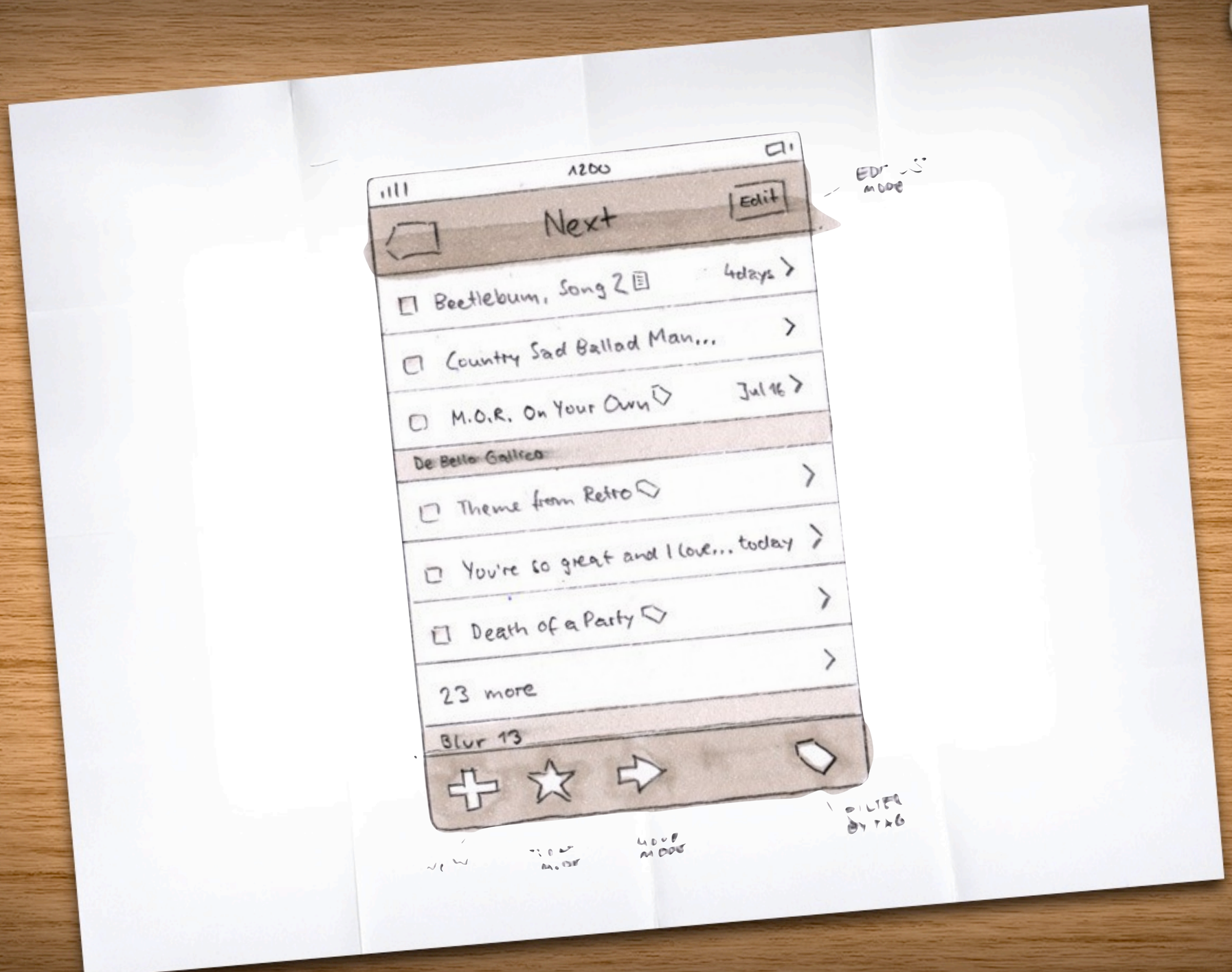

1200
Next
Edit
EDIT LIST MODE
Beetlebum, Song 2
4days
Country Sad Ballad Man...
Jul 16
today
Death of a Party
23 more
Blur 13
check the angle of the purple box
FILTER BY TAG



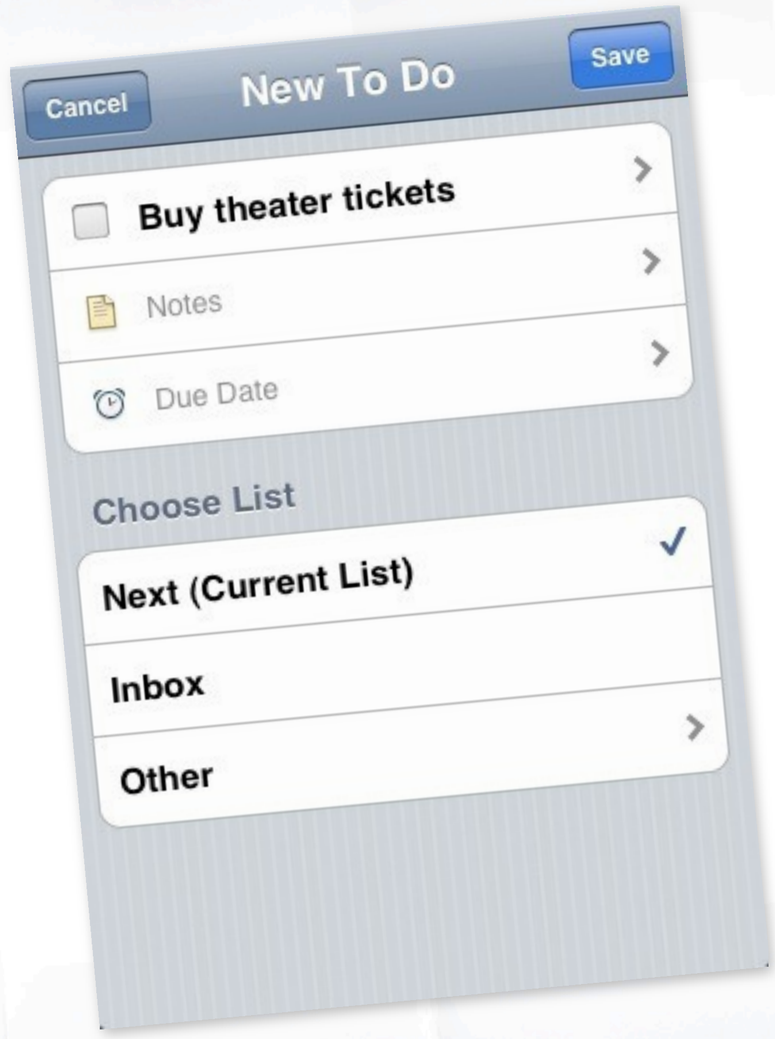




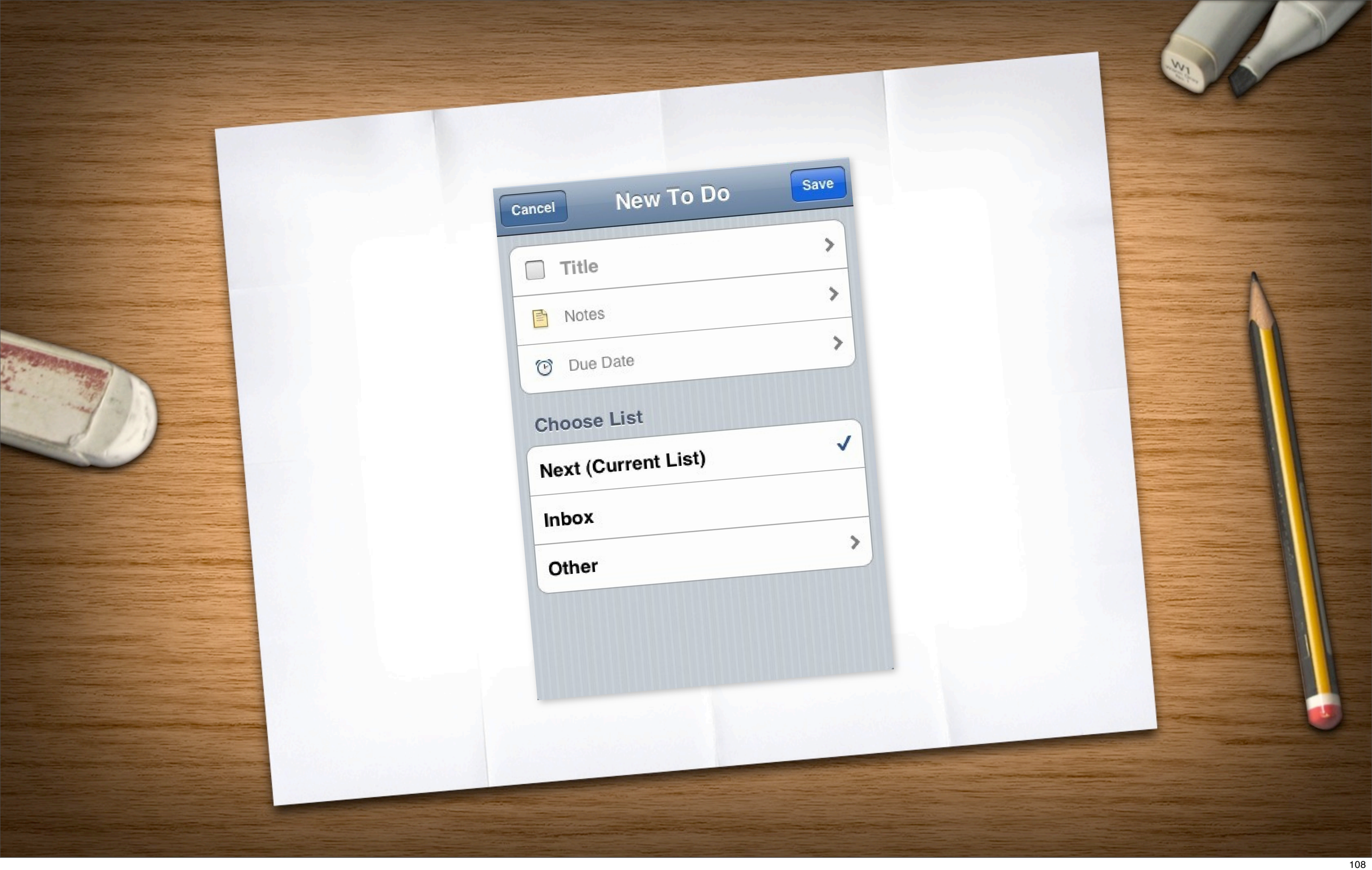
1200
Things
Inbox
Today
Next
Someday
Scheduled
Projects


12:00
Next
Edit
Beetlebum, Song 2
4days
Country Sad Ballad Man...
M.O.R. On Your Own
Jul 16
De Bello Gallico
Theme from Retro
You're so great and I love... today
Death of a Party
23 more
Blur 13

Next
NEW
NEW
IN
INBOX


Cancel
New To Do
Save
Buy theater tickets
Notes
Due Date
Choose List
Next (Current List)
Inbox
Other

3. QUICK ENTRY


Cancel
New To Do
Save
Title
Notes
Due Date
Choose List
Next (Current List)
Inbox
Other

Cancel

New To Do

Save

Title

Notes

Due Date

Choose List

Next (Current List)

Inbox

Other

Cancel

Edit Title

Save

Buy theater tickets

Q W E R T Y U I O P

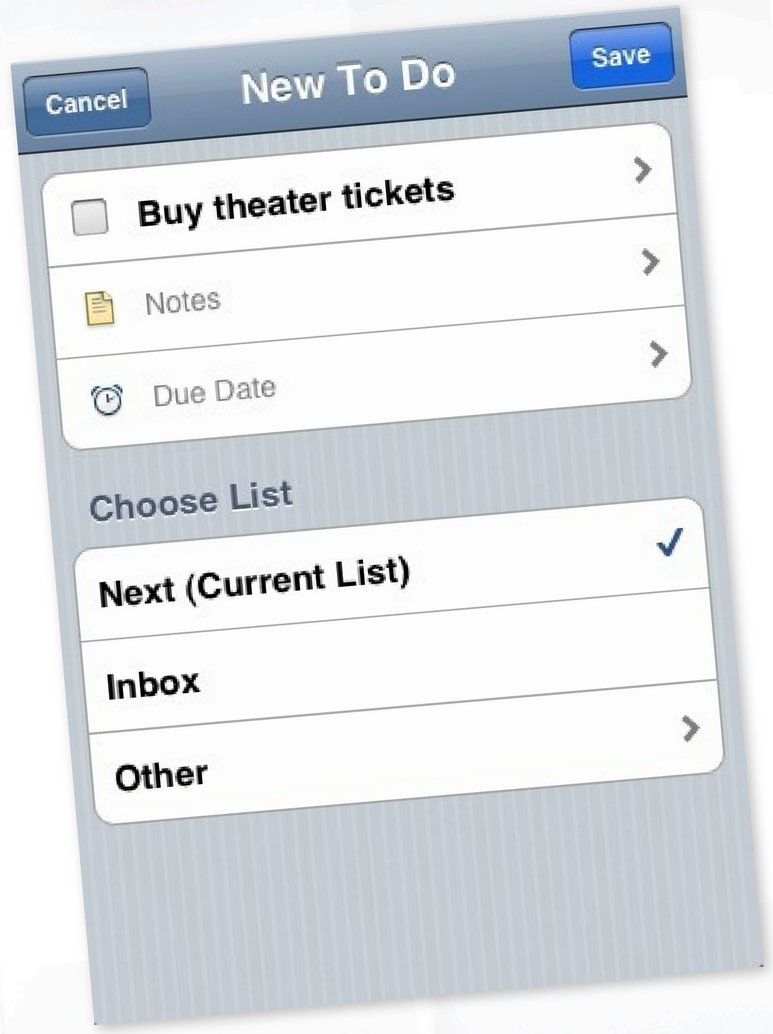
A S D F G H J K L

Z X C V B N M

123

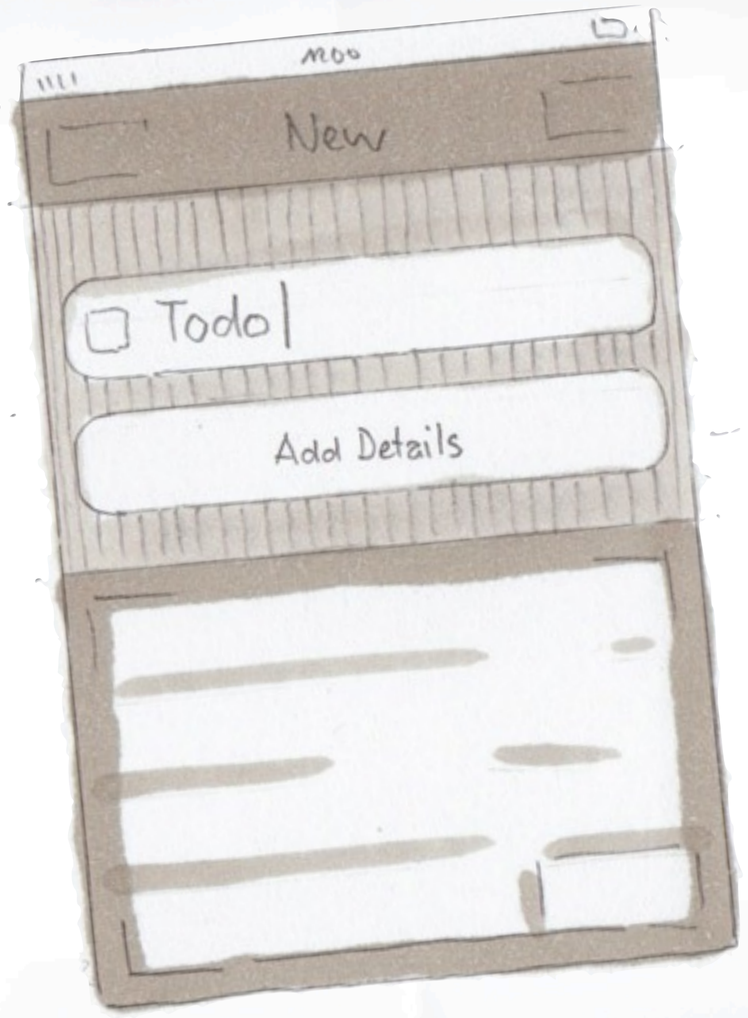
space

return


Cancel
New To Do
Save
Buy theater tickets
Notes
Due Date
Choose List
Next (Current List)
Inbox
Other

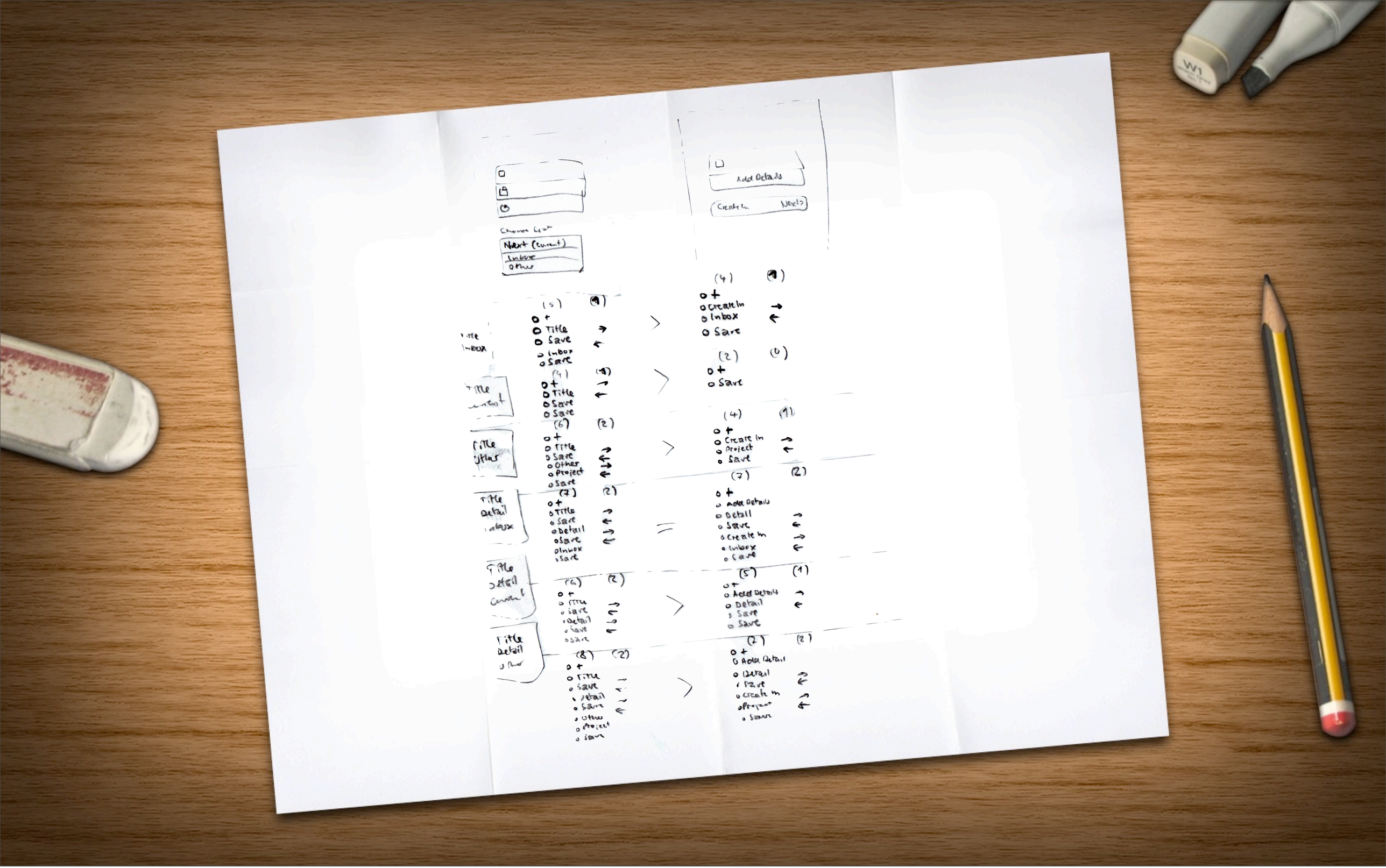
New
Todo!
Next
Create in

Cancel
New To Do
Save
Buy theater tickets
Tags
Notes
Due Date
Choose List
Next
Q W E R T Z U I O P
A S D F G H J K L
Y X C V B N M
123
Leerzeichen
Return

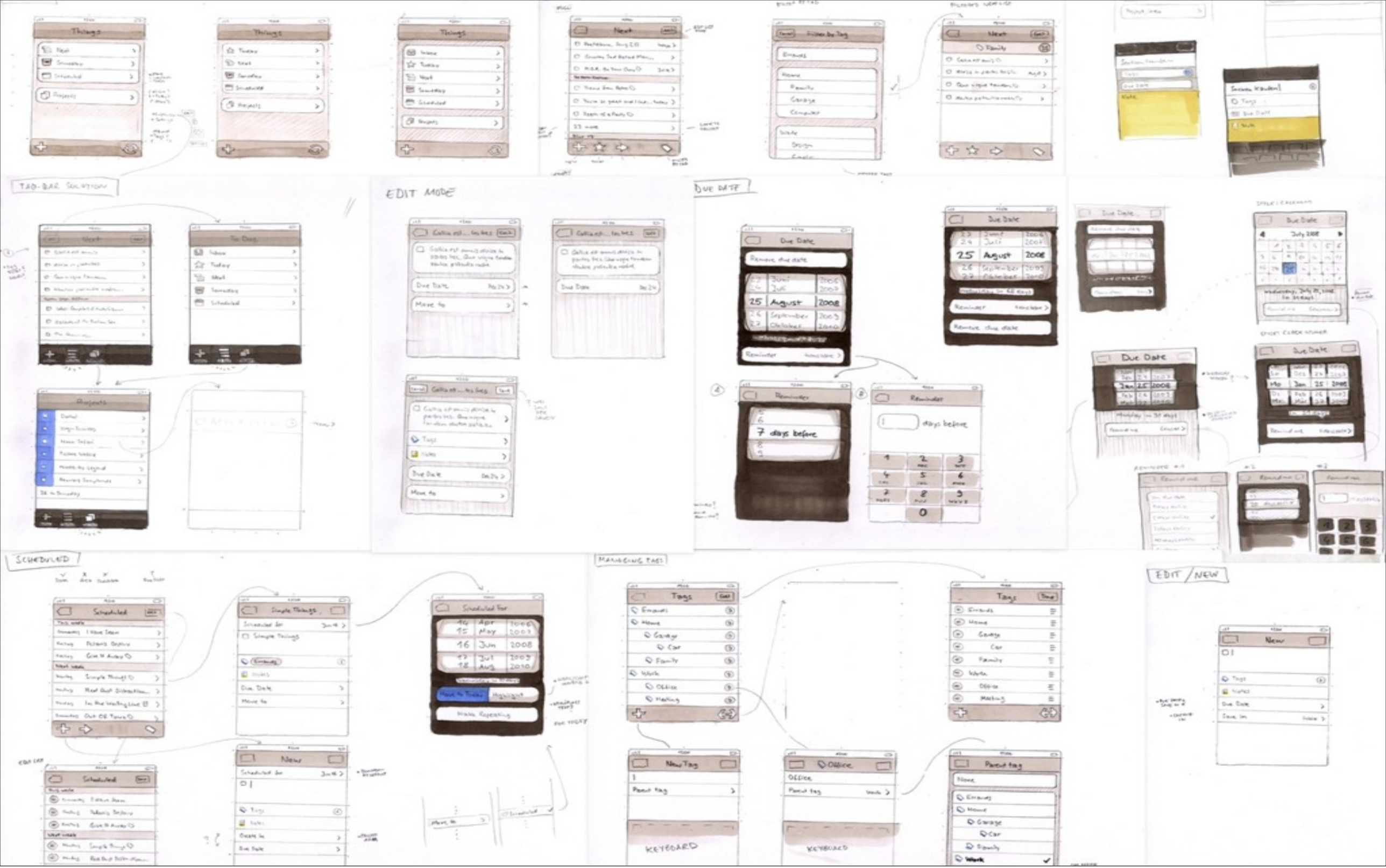

New
Todo
Add Details

Cancel
New To Do
Save
Buy theater tickets
Add Details
Create in
Next
Q W E R T Z U I O P
A S D F G H J K L
Y X C V B N M
123
Leerzeichen
Return

Cancel
New To Do
Save
Buy theater tickets
Tags
Notes
Due Date
Create in
Next


Add Details
Create In
Next?
Next (current)
Inbox
Other
Add Details
Detail
Save
Create In
Project
Inbox
Title
Detail
Current
Title
Detail
Inbox
Title
Detail
Other

Cancel
New To Do
Save
Buy theater tickets
Add Details
Create in
Next
Q W E R T Z U I O P
A S D F G H J K L
Y X C V B N M
123
Leerzeichen
Return


Things
Next
Scheduled
Projects
Inbox
Today
Tomorrow
Hidden by Tag
Family
Garage
Computer
Work
Design
Code
TAB-BAR SOLUTION
EDIT MODE
Due Date
Remove due date
25 August 2008
Reminder
7 days before
days before
SCHEDULED
MANAGING TAGS
Tags
New Tag
Office
Parent tag
EDIT / NEW
New

iPhone User Interface Design

Foundation
Understand the paradigm shifts of iPhone

Product Definition
Develop core concepts and directions

Design and Prototype
Rapid problem solving on paper

Polish and Refine
Application differentiation through details

Polish and Refine

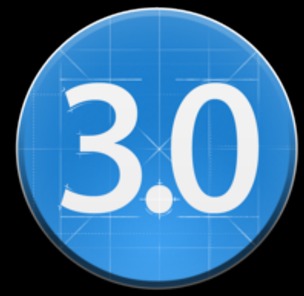
Making something great

- Employ the latest technologies
- Add excitement with animation
- Increase fidelity for application differentiation

John - 3 icons for each section 1 2 3

Polish and Refine

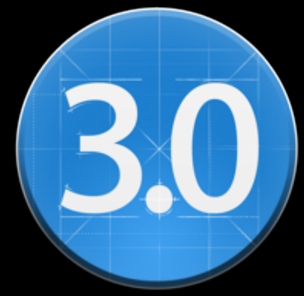
iPhone OS 3.0 checklist



- Search and scope controls

Polish and Refine

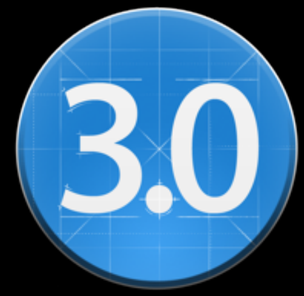
iPhone OS 3.0 checklist



- Search and scope controls
- Spotlight and settings icons

Polish and Refine

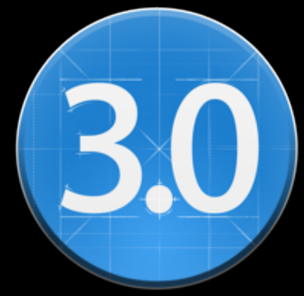
iPhone OS 3.0 checklist



- Search and scope controls
- Spotlight and settings icons
- Push notifications

Polish and Refine

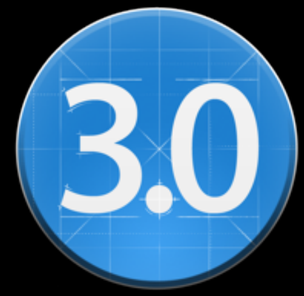
iPhone OS 3.0 checklist



- Search and scope controls
- Spotlight and settings icons
- Push notifications
- Copy and paste

Polish and Refine

iPhone OS 3.0 checklist



- Search and scope controls
- Spotlight and settings icons
- Push notifications
- Copy and paste
- Undo Redo

Polish and Refine

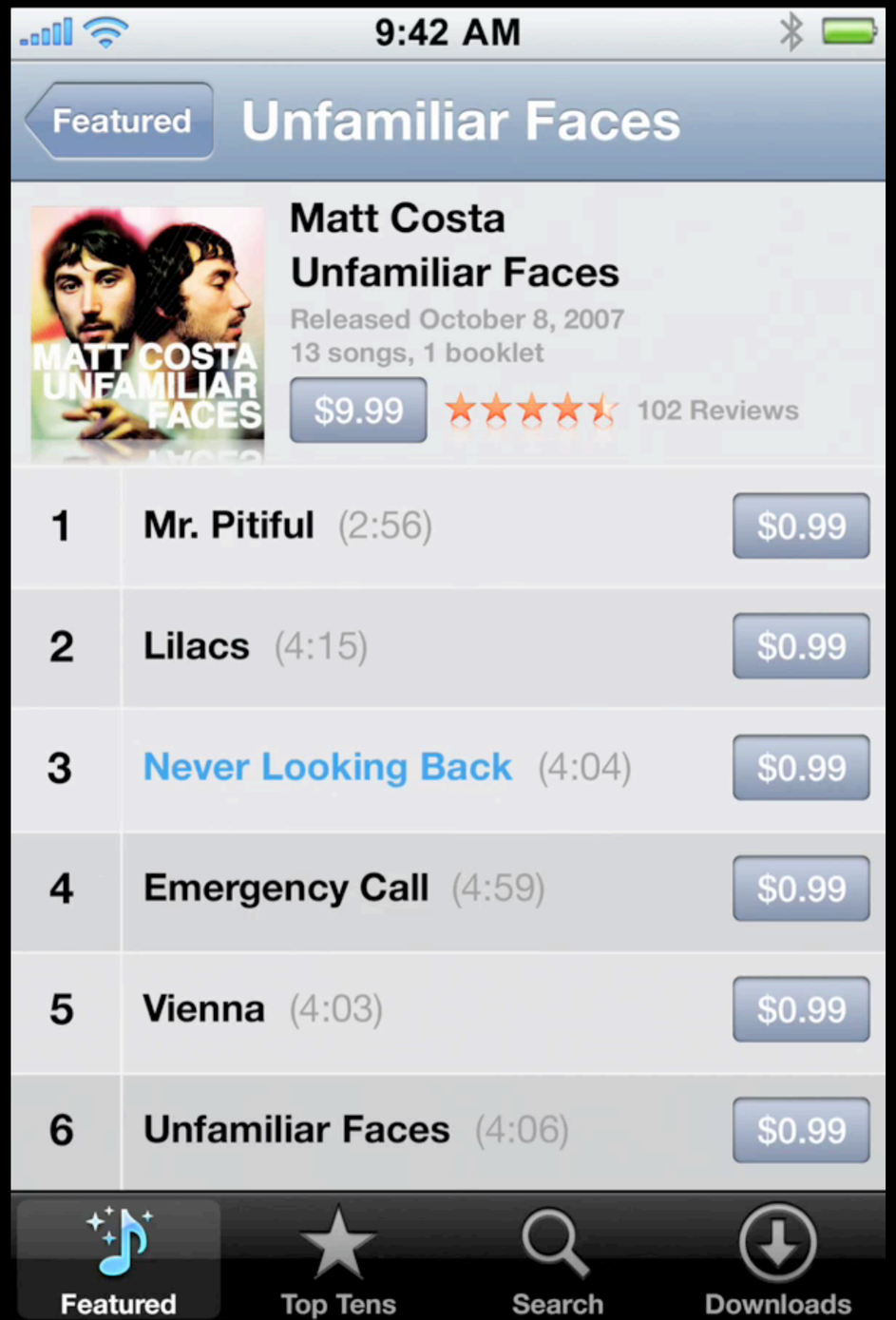
Add excitement with animation

- More realistic, approachable, fun
- Clarifies a process or concept
- Reflects result of action

Polish and Refine

Add excitement with animation

- Deleting notes
- Moving mail
- Purchasing music
- Revealing map filters



Polish and Refine

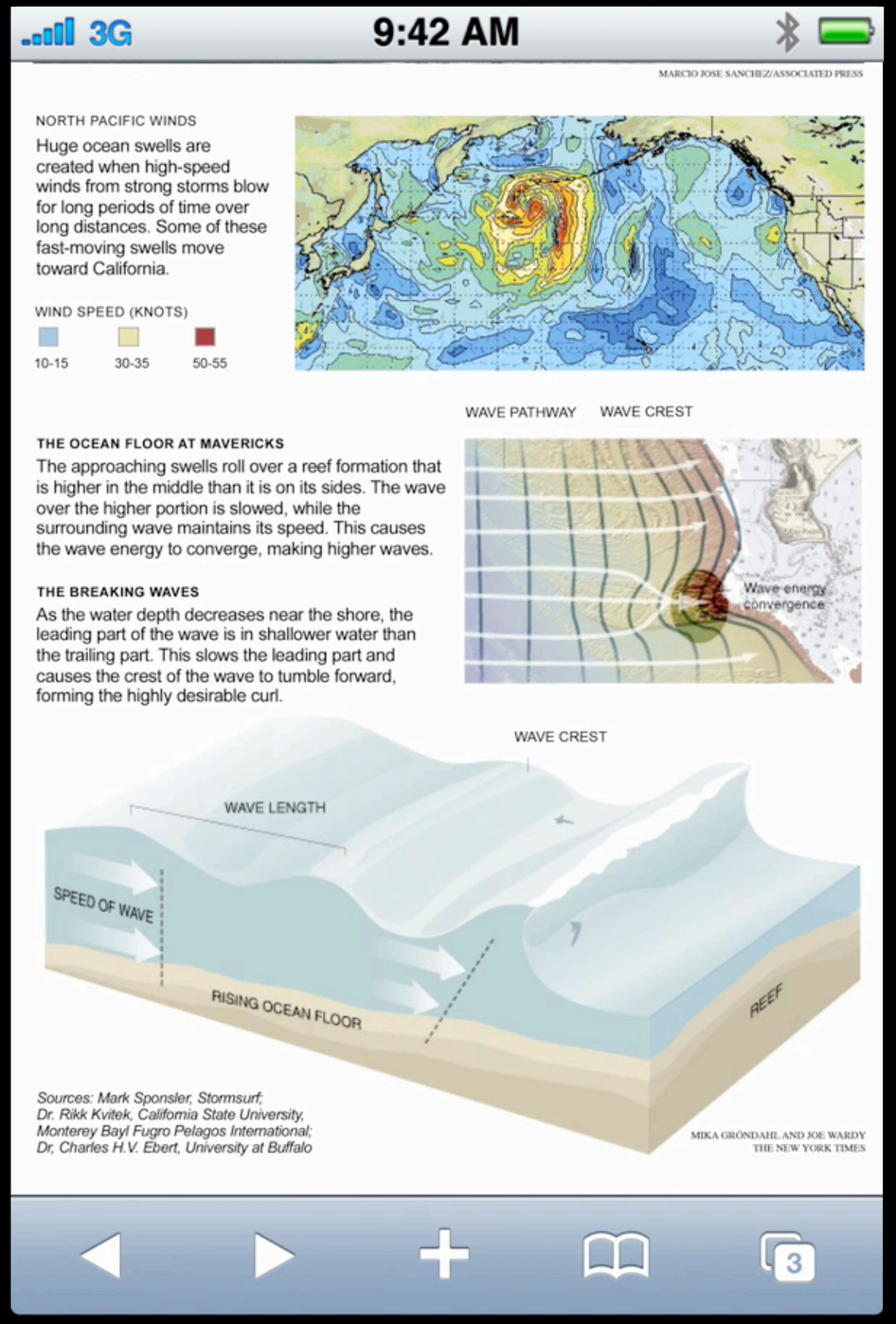
Add excitement with animation

- Deleting notes
- Moving mail
- Purchasing music
- Revealing map filters
- Changing photos

Polish and Refine

Add excitement with animation

- Deleting notes
- Moving mail
- Purchasing music
- Revealing map filters
- Changing photos
- Selecting pages



Polish and Refine

Add excitement with animation

- Deleting notes
- Moving mail
- Purchasing music
- Revealing map filters
- Changing photos
- Selecting pages
- Customizing icon positions

Polish and Refine

Add excitement with animation

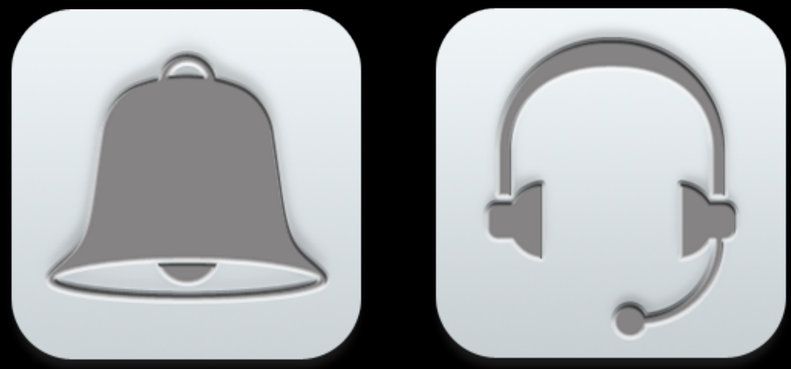
- Use animation to
  - Enhance a task or concept
  - Provide valuable feedback
  - Clarify a process or concept

- Avoid
  - Animating everything
  - Gratuitous animation
  - Distracting from the main task

Polish and Refine

Sound, the forgotten frontier

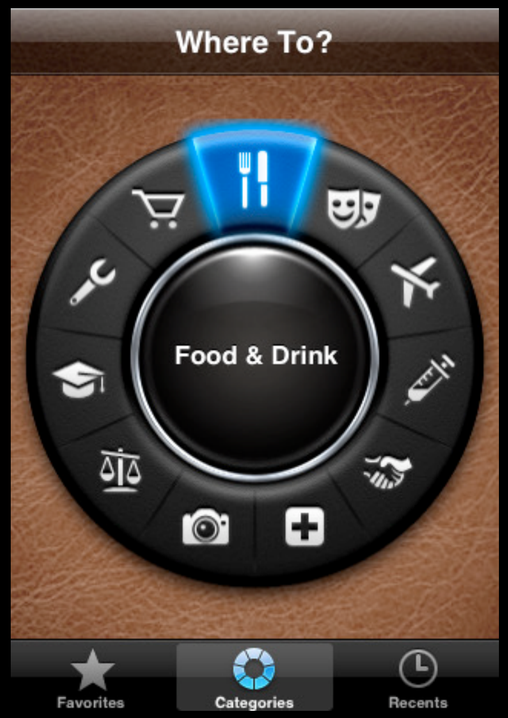
- Sound can increase value
- Must be relevant
- Use the proper channels
- If used in one context, consider adding to all like contexts



Polish and Refine

Tactile design, the new frontier

Ski Lodge
Spectacular Apps



Where To?
Sophiestication Software

Convertbot
Tapbots

3G
9:42 AM
Length
Foot + Inch → Millimeter
FROM
5 ft 9 in
TO
1,752.6 mm
ft + in
mm

3G
9:42 AM
Length
Foot + Inch → Millimeter
FROM
5 ft 9 in
TO
1,752.6 mm
ft + in
mm

Polish and Refine

New interface techniques

Direct Manipulation

Tactile Design

Transparent Design

Transparent Design

Contextual controls and information

- Available only when needed

Transparent Design

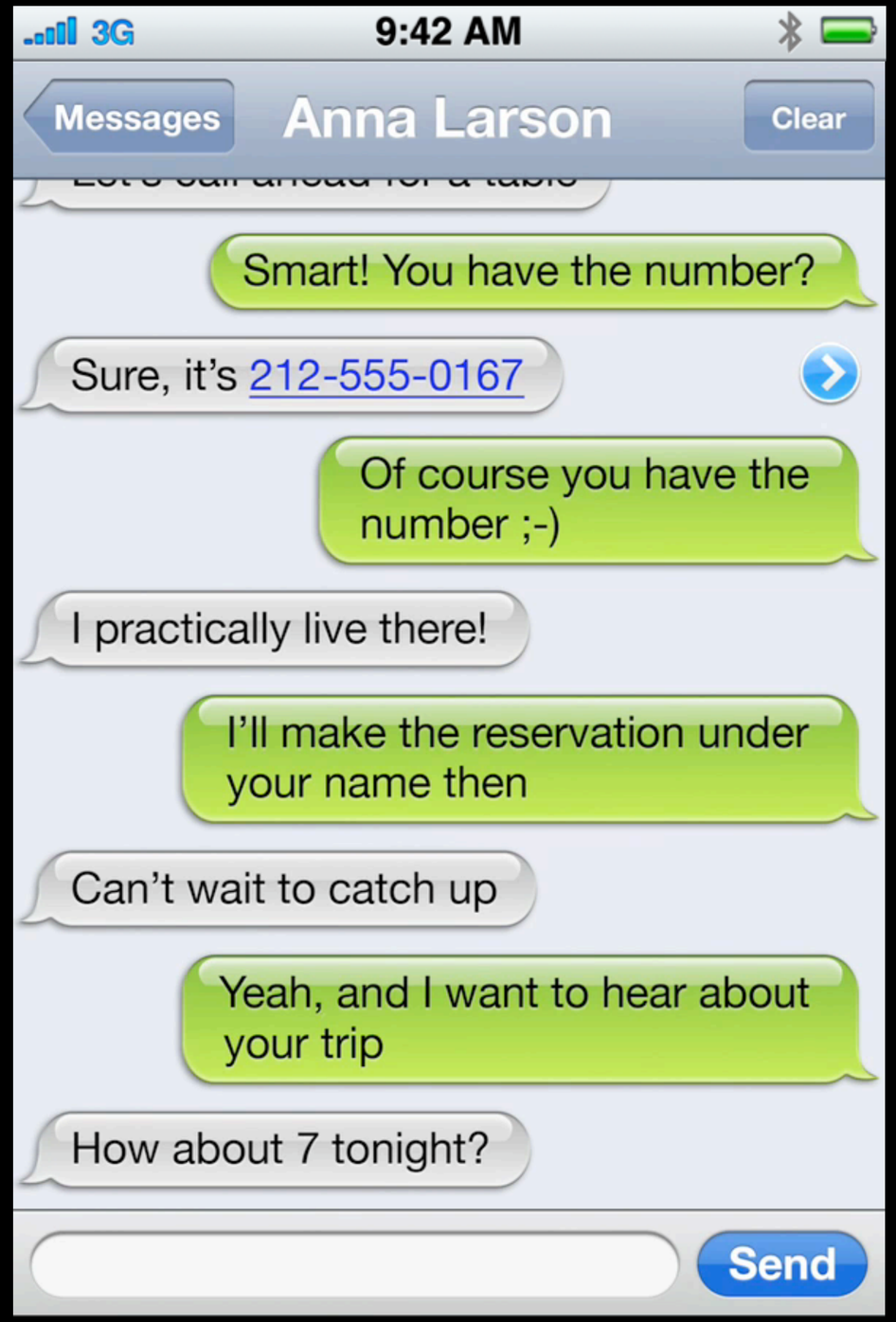
Contextual controls and information

- Available only when needed

Transparent Design

Contextual controls and information

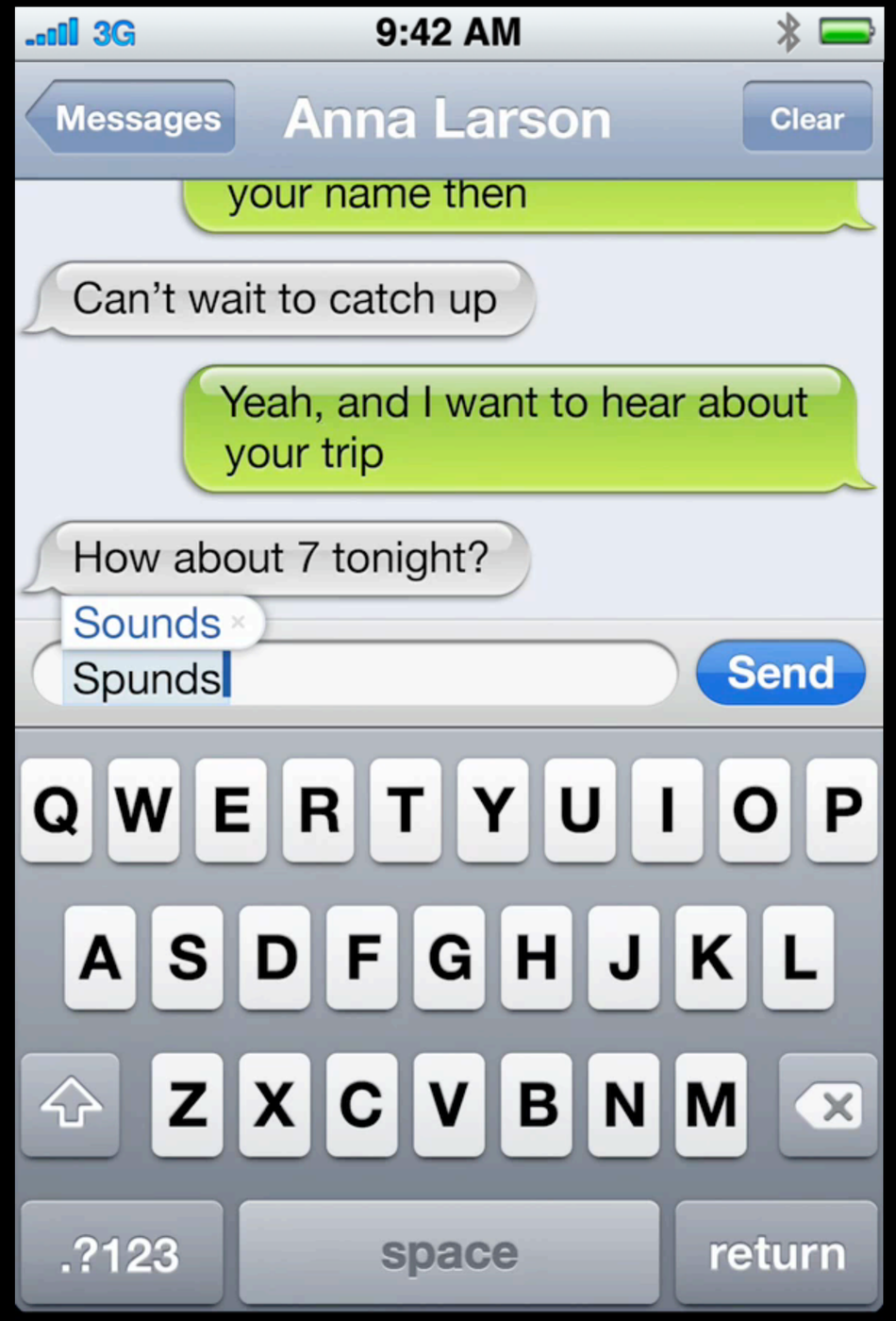
- Available only when needed
- Context sensitive



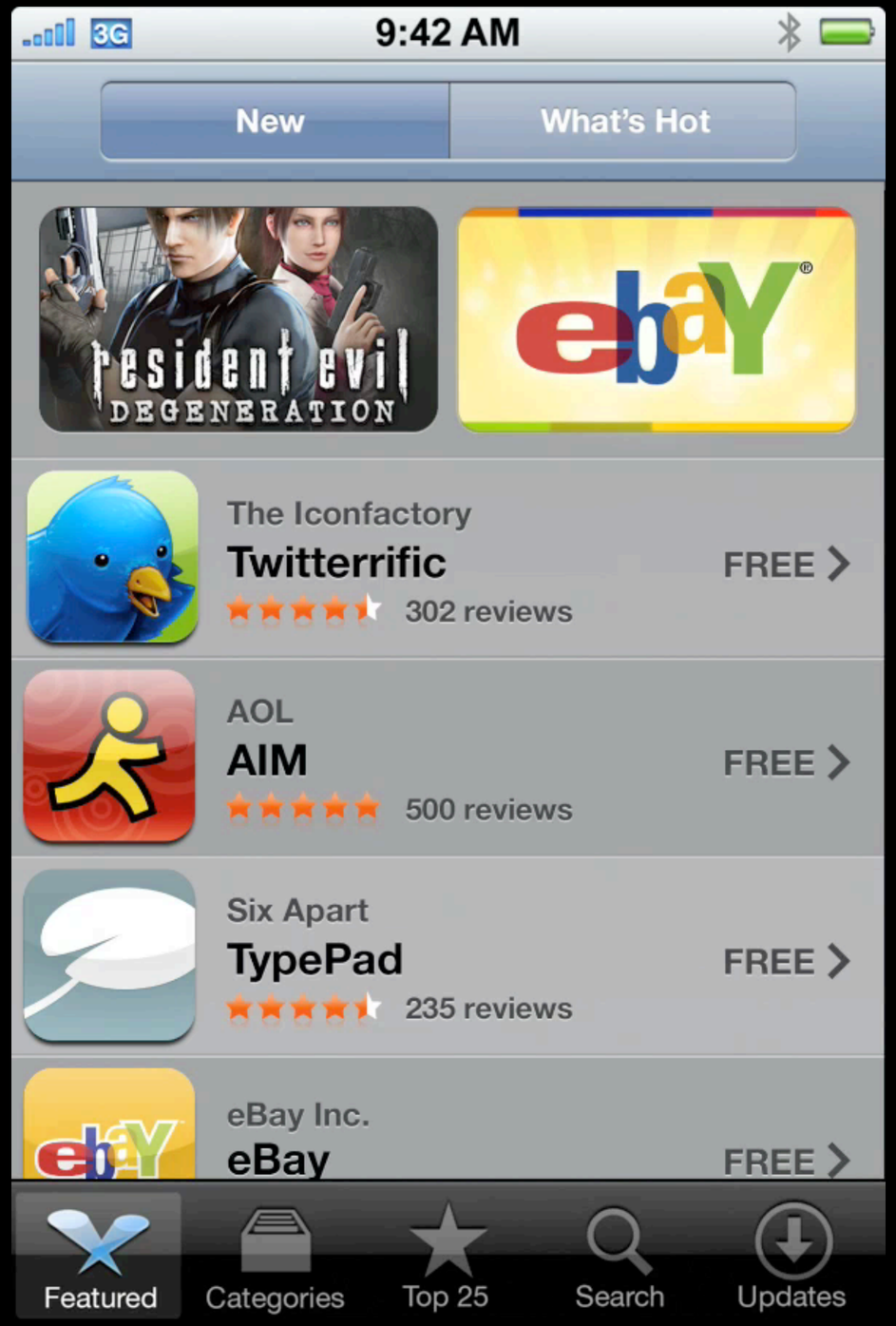
Transparent Design

Contextual controls and information

- Available only when needed
- Context sensitive
- Transient in presentation and style



Complete Immersion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Transparent Design

Does titling fit?

Transparent Design

Finding balance

UI defines game design, game design defines UI.

Transparent Design

Touch interfaces: Resident Evil Degeneration

Virtual Pad

Virtual Button

If Simple Tap Can Defeat Zombies

Too easy does not make it more interesting

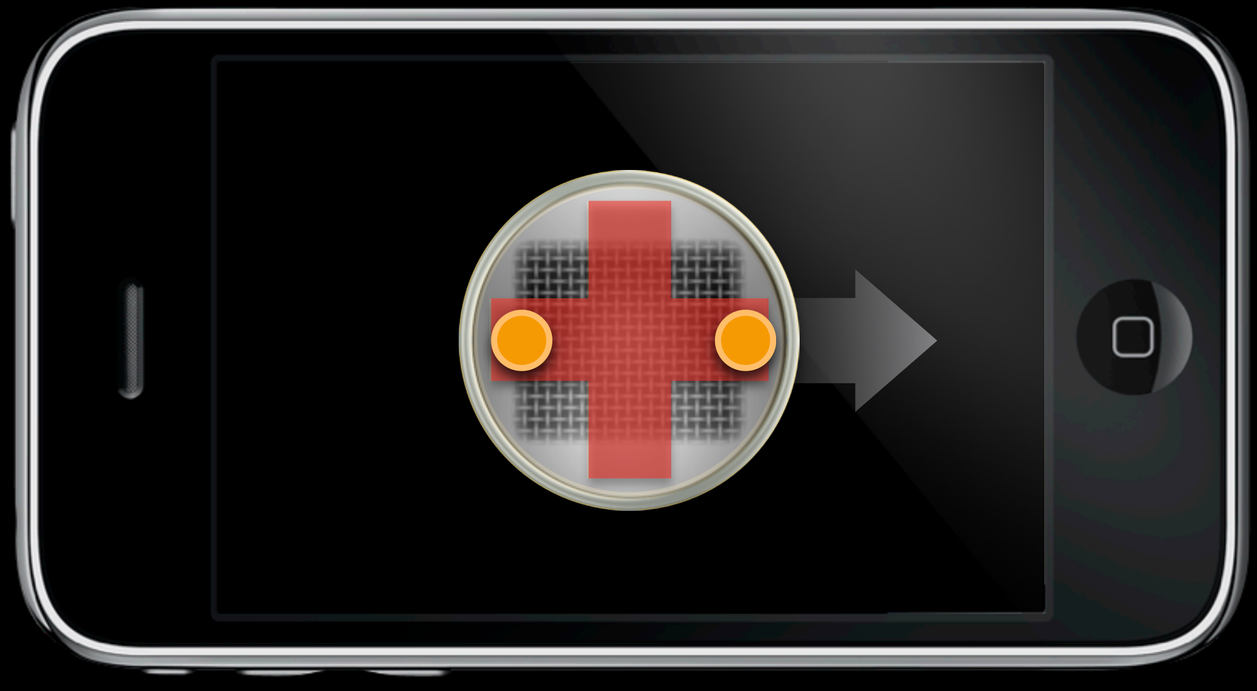
Transparent Design

UI for: Resident Evil Degeneration

Analog Control

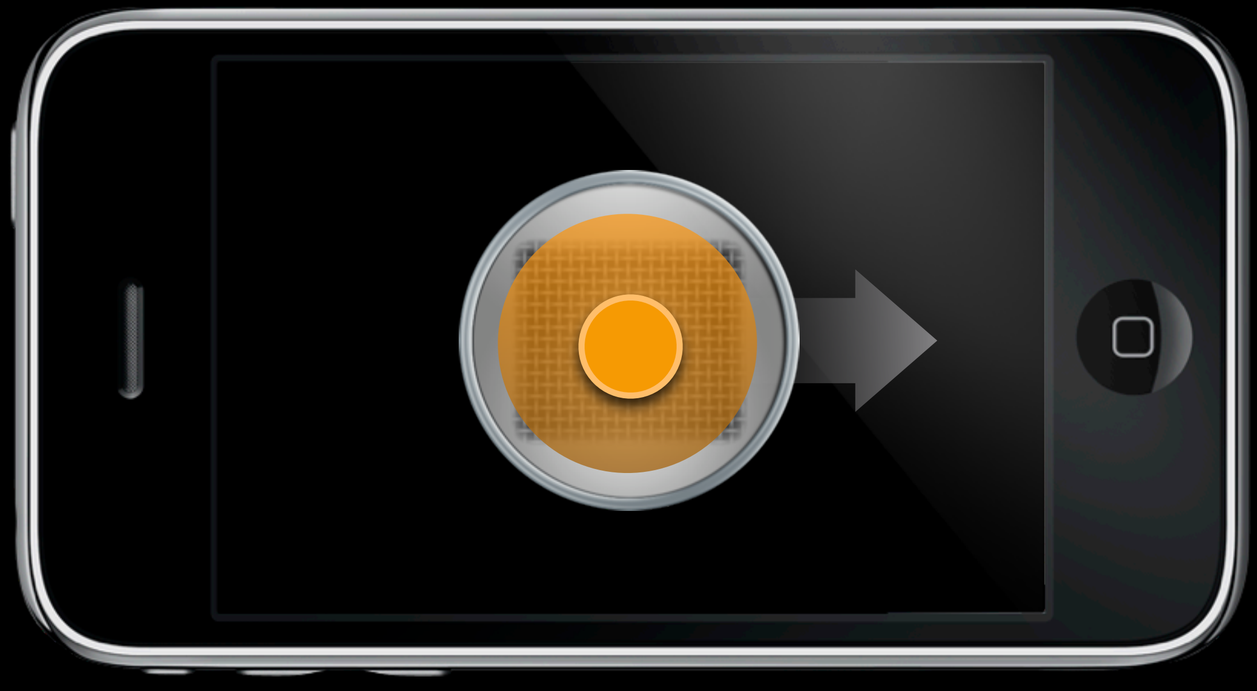
Icon Button

Transparent Design



Simple MATRIX Style

Transparent Design



Analog Touch-N-Drag Style

Visual Icon Button

Situation Change

Icon Change

From Virtual Pad to Visual Pad

Transparent Design

Touch interfaces

Emotion

Transparent Design

Touch interfaces

Status

Transparent Design

Touch interfaces

Difficulties

UE > UI

User Experience > User Interface

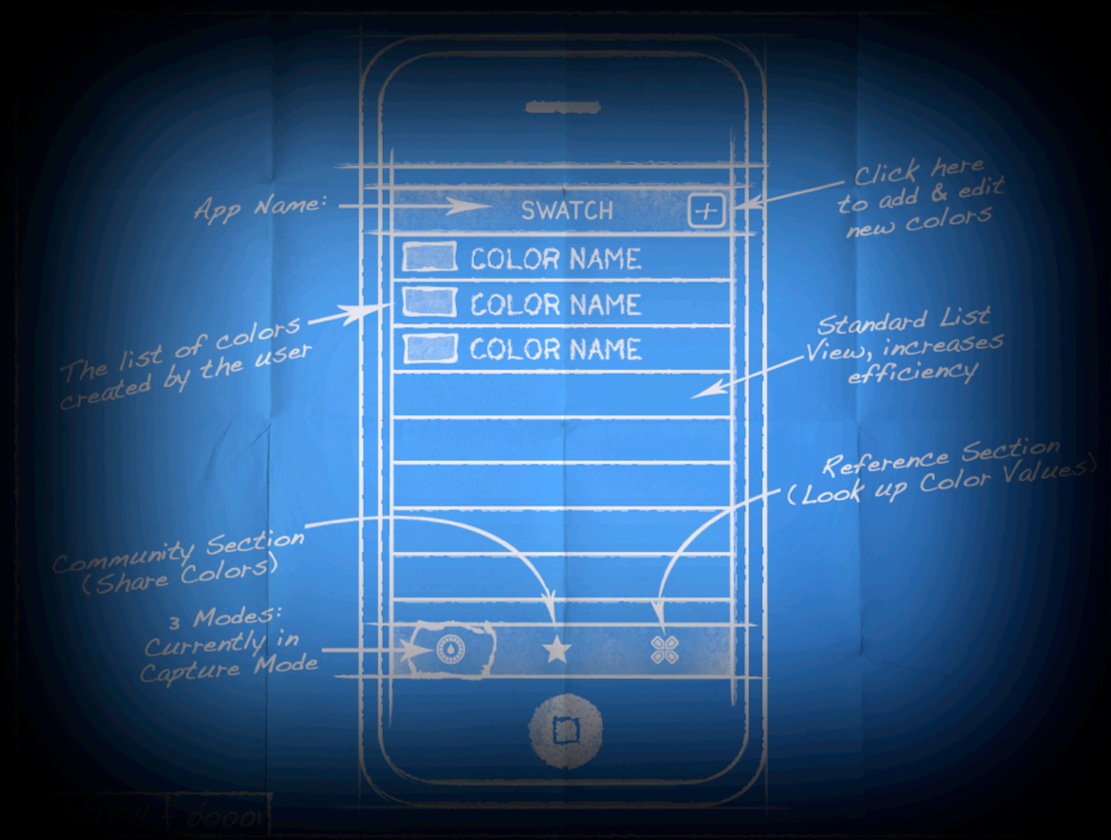
Thank You

Takeshi Tezuka
Mobile Development Department

Take Away

Define, Refine, Release

1. Craft an application definition statement
2. Iterate on paper, early and often
3. Polish and refine to differentiate from your competitors



More Information

Eric Hope
User Experience Evangelist
ehope@apple.com

Documentation
Mac OS X Human Interface Guidelines
http://developer.apple.com/ue

Related Sessions

Prototyping iPhone User Interfaces	Nob Hill Wednesday 10:30AM
Effective iPhone App Architecture	Presidio Thursday 3:30PM

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